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Vliv finanční krize na vybraný podnik v České republice
Impact of Financial Crisis on Selected Company in the Czech Republic

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Prohlašuji, že jsem celou práci, včetně všech příloh, vypracoval samostatně.

David Ohanka

V Ostravě dne 12. 6. 2016 David Ohanka

Here I declare, that whole work including annexes was developed independently.

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ABSTRACT

The aim of this study is to assess whether and to what extent have the Global Financial crisis influenced a case company SMART TRADING COMPANY s.r.o. and its financial performance during the years 2007 – 2011. Financial performance was evaluated with the use of financial statement analysis and the evaluation focused on four key areas determining the financial performance; solvency, liquidity, activity, profitability and how these areas influence the financial performance yardstick – indicator ROE. Results of financial statement analysis are discussed with Financial Manager of a case company in order to interpret achieved results in the light of company's environment.

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1 INTRODUCTION

The 2007 – 2009 Global Financial crisis has become integral part of today's economic world, with an impact not just on supra-national and national economics but also on small and medium enterprises. Financial crisis affected and most certainly continues to affect economic decisions made by governments, enterprises' management and ordinary citizens all over the world.

Triggered on the USA mortgage market, the crisis spread globally, hitting the largest investment banks worldwide and causing the failure of the tremendous number of bigger or smaller companies. Following economic recession in 2008 - 2009 was the worst since the Second World War (Sinn, 2010). Recession severe enough that millions of people lost their jobs, many of until then healthy enterprises went out of the business, others were merged with less affected competitors and most of the economic sectors were forced to adopt strict austerity measures.

Financial crisis came unexpected for many and caught them unprepared. Former Chairman of Federal Reserve System, Alan Greenspan, called this sudden turmoil of financial markets as "one-in-the-century credit tsunami" (BBC Business, 2008). The crisis was followed by a major decline in economic performance of national economics, increase in indebtedness or bankruptcy of many economic subjects and financial and business markets' stagnation.

Even though financial crisis has already gradually diminished, the consequences are still present in the aftermath of the crisis. Following economic downturn seems to be overcome nowadays as the GDP of vast majority national economics is growing again (IMF World Economic Outlook, 2015). But sovereign debt level of many countries is now higher than ever before. Upswing of many Asian economics leading with China is another implication of world's economy development after 2007 – 2009 Global Financial crisis. Many weak companies in the market have not survived or were swallowed by bigger players and survivors have not got away without wounds. Companies have been forced to reduce their production caused by decline in orders, dismiss many of their employees and introduce further measures in order to overcome the crisis.

As the need of cost reductions has arisen, the importance of financial management became more evident. Financial management is an essential part of company's financial decision-making. It helps efficiently allocate funds and effectively utilize them which contributes to the vital financial situation (Paramasivan, 2009). Without proper management of funds, firms would not be able to achieve its corporate objectivities. To determine whether financial situation or

financial health of a particular company is favourable or not, it is expedient to analyse its financial statements. The task of financial analysis is an overall assessment of the financial situation of the company based on information obtained from financial statements (Brealey, Myers & Allen, 2014). Financial statement analysis uses different groups of indicators to assess company's level of profitability, liquidity, level of indebtedness and activity. Also, financial statement analysis helps to identify potential problems in the financial condition of the company and helps to recognize its strengths. Financial statements capture economic processes of the firm's operations and company's financial position in order to perceive the overall performance of the company (Brigham & Gapenski, 1994).

This research aims to answer the question whether and to what extent have the Global Financial crisis influenced the selected case company during the years 2007 - 2011 in terms of impact on company's financial performance. The objectives of this dissertation are as follows:

(1) To evaluate financial performance of the case company during the monitored years.
(2) To identify main factors influencing the financial performance of a case company.
(3) To assess the impact of Global Financial crisis on a case company and its financial performance.

Firstly, this paper attempts to analyse company's profitability, solvency, liquidity and activity in order to evaluate company's overall financial performance. The results will be compared with industry benchmark to assess whether company performed better or worse than the industry average. To comprehensively analyse company's performance and its four key areas, this paper will use ratio analysis as one of the methods of financial statement analysis.

Secondly, this paper aims to identify factors which influenced company's financial performance. Du Pont analysis will serve as a suitable tool to do so. This tool for analysis is based on the decomposition of financial performance "yardstick" - indicator ROE.

And finally, last objective is to assess the impact of the Global Financial crisis on a case company and its financial performance. This will be done with the use of interview with Financial manager of a selected company in order to interpret results of financial statement analysis achieved in times of Global Financial crisis and to discuss how financial crisis influenced company's financial performance.

This research is divided into six chapters. After a brief introduction in chapter one, the study begins with a theoretical background in the literature review in which this study attempts to

describe the Global Financial crisis, its origin, development and impact on the real economy. Further, previous studies evaluating the impact of the Global Financial crisis on financial performance of firms are discussed. Second part defines financial performance and introduces financial statement analysis as a tool to evaluate financial performance, explains the purpose of analysis, its final users, sources of data and methods used while conducting analysis.

In the third chapter, the study presents a methodological framework used while conducting the research. This study uses mixed methods to conduct research. They are specified in methods of data collection part. Also, a case company is presented within this chapter.

Fourth chapter focuses on the data analysis and presentation of its results. This chapter is divided into three parts. The first part is concerned with the analysis of the company's property and financial structure. Second part analyses case company's financial performance through four key areas; solvency, activity, liquidity and profitability. Third part assesses the influence of selected indicators on indicator ROE as a financial performance "yardstick".

After that, discussion of results follows together with an evaluation of Global Financial crisis impacts on financial performance of a case company. Study concludes in chapter six.

2 LITERATURE REVIEW

The aim of this literature review is firstly to define what the financial crisis is and how it emerges. Furthermore, the 2007 - 2009 Global Financial crisis is described with an emphasis on impacts of the Crisis. Impact on real economy and particularly Czech environment is presented, followed by a discussion of other studies focusing on impacts of the Global Financial crisis on financial performance of enterprises. Finally, concept of financial performance and its measures are presented with a focus on the overview of the individual indicators commonly used in financial statement analysis.

2.1 Global Financial crisis

2.1.1 Definition of financial crises

To begin with a discussion of recent Global Financial crisis, it is necessary to first define the term. Despite the fact that crisis, or precisely financial crisis, is still frequently discussed topic, its content is not unambiguously defined and every author has relative freedom in its definition.

The concept of crisis is from a macroeconomic perspective related to phases of the business cycle. As Samuelson & Nordhaus (2005) mentioned, the business cycle indicates periodic fluctuations in economic activity at the level of the whole economy and consist of a regular sequence of expansion, peak, recession and trough as its phases. If national output grows, this state is considered as an expansion. Second stage of the business cycle is its peak, which results in slowing of GDP growth and its decline. If national output declines for at least two consecutive quarters, economics is considered to be in recession (Samuelson & Nordhaus, 2005). National Bureau of Economic Research (2010) describes recession as a "significant decline in economic activity" when economics reaches its minimum. As a crisis is considered situation when economic contraction is sudden and very steep (Jurecka, 2010).

According to International Monetary Fund (1998), financial crises "are potentially severe disruptions of financial markets that, by impairing market's ability to function effectively, can have large adverse effects on the real economy". IMF refers in their definition to Frederic S. Mishkin. Mishkin (2001) defines financial crisis as a "nonlinear disruption to financial markets

in which adverse selection and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities."

Eichenger and Portes (1986) compare financial crises to human diseases. Just as doctors must know as much about the patient's illness as possible in order to treat him well or prevent further infection, economists must understand the financial crisis to be able to mitigate the contagion risk of crisis to the whole economy.

To continue in Eichenger and Portes (1986) analogy of financial crises as human diseases; Nouriel Roubini (2010) in his book recalls an old saying from financial markets, which is applicable to the Global Financial crisis: "when the United States sneezes, the rest of the world catches a cold". Roubini argues that the United States as the world biggest economy has a significant impact on demand of basically everything; from raw materials to finished customers' goods. And when such an important player on world market gets "sick", the rest of the world suffers. And the United States by the end of the year 2007 certainly did show signs of disease.

2.1.2 Background of the crisis

Although the outbreak of the financial crisis was in 2008, the warning signs in the credit markets began to appear already during 2007 when the housing market collapsed (Sinn, 2010). Many authors agree that the main cause of the Global Financial crisis was the debt bubble on the US real estate market (Acharya et al, 2009; Foster & Magdoff, 2009; Mishkin et al, 2015 or Sinn, 2010). However, disagreement prevails as regards to the identification of the main causes of such bubble.

Boom on the US housing market certainly contributed to expansion of debt bubble. As Tarr (2010) explains, deregulation of the US housing market is considered to be one of the causes of the bubble. Deregulation was supported by the adoption of Community Reinvestment Act in 1977, which helped poor people to obtain a mortgage and invest in their new houses (Tarr, 2010). Also, two government-sponsored enterprises (GSE) – Fannie Mae and Freddie Mac, contributed to a massive expansion of subprime mortgages. According to Morris (2008), both institutions helped to the mortgage market by extending the access to housing. Banks were able to provide more mortgages while taking minimal risks since banks' originated mortgages were then acquired by these state institutions (Morris, 2008).

Sinn (2010) emphasizes that the fundamental cause, without which the housing bubble would not reached such proportions, is the process of securitization. Sinn describes securitization as a process in which a bank bundles together different types of loans (student loans, car loans, consumer loans or mortgages) into packages and these packages are then sold as new structured products such as CDOs (collateralized debt obligations), due to its doubtful structure also called "toxic assets". Together with securitization, underwriting standards decreased since banks have focused on the amount of loans granted and not on their quality, because they believed that in case of customer's default, they may sell customer's property in the market without any losses (Sinn, 2010).

According to Docherty & Viort (2013), another significant event in the crisis development was the recession after a "dot-com" bubble and following FED's response. Dot-com bubble is often described as a rapid growth of technology and "new era" stocks in the 1990s' and its sharp fall in 2001 (burst of the bubble) followed by an economic recession (Docherty & Viort, 2013). The FED responded by cutting interest rates down to 1% in 2003 in an effort to prevent the fall of the US economy into recession (Foster & Magdoff, 2009). Although this FED's move is considered as correct, Sinn (2010) argues that interest rates have been maintained low for too long, thereby it led to the excessive credit expansion followed by the boom on the housing market and in the end, the US economics experienced that the dot-com bubble was replaced by a housing bubble.

2.1.3 Outbreak of the crisis and further development

As Sinn (2010) describes, after years of housing market growth, the rate of growth of real estate prices sharply declined and eventually, the prices began to fall. Along with an increase in interest rates and in other costs, the number of late payments of mortgages began to increase significantly (Sinn, 2010). Also, the number of foreclosures grew since the owners could not afford to repay its mortgages. Fall in asset prices affected the Fannie Mae and Freddie Mac to the extent that both GSEs suffered losses of almost $14 billion, having a substantial impact on stability of housing market. Therefore, the US government announced takeover of both agencies on September 7, 2008 in order to save both GSEs and calm down the market (Sinn, 2010). However, the panic was already unleashed.

According to Foster & Magdoff (2009), panic started to spread throughout the financial institutions and deep uncertainty arose as the financial institutions were not sure how much

toxic assets they possessed, and how much their business partners did. Moreover, the crisis began to shift from the housing market to the financial market due to the above described securitization process (Sinn, 2010).

The first major crash occurred in June 2007, when two hedge funds belonging to the investment bank Bear Stearns collapsed. In turn, FED stepped in and provided a loan to the bank JPMorgan Chase & Co. in order to take over Bear Stearns for a mere $2 per share (in January 2007, the value of one share was $171 USD) in March 2008 (Buckley, 2011).

Panic did not spread only on the US financial market, but throughout the world, because foreign investors were involved in speculation with the US securities as well (Buckley, 2011). Northern Rock, which was practicing quite an aggressive business model, in September 2007 became the first British bank after the Second World War that was hit by a run on bank with deposits withdrawn totaling £6 billion (Buckley, 2011). The bank became insolvent – was unable to meet its obligations, then government aid followed and finally, the bank was nationalized by the British government, which provided £13 billion, obviously from the public money (The Economist, 2007).

By the end of 2008, financial crisis was affecting not just the financial markets, but spilled over to the real economy.

2.1.4 Impact on the real economy

The Global financial crisis began to influence the world economy at the end of 2008 and the largest decline in world output was recorded in 2009 as shown in Figure 2.1. According to many authors, the Global Financial crisis had an impact on the real economy in following areas: decline in domestic demand, recession and decrease in the volume of world exports and imports.

Foster & Magdoff (2009) explain growth and the following decline in domestic demand in terms of the wealth effect. They showed that during the housing market bubble, there was so-called “wealth effect” when households were massively borrowing because of the low interest rates and easy access to consumer loans. As the housing prices rose dramatically, consumers were allowed to borrow even more against their increased equity (Foster & Magdoff, 2009). But when the bubble burst, the previous effect of wealth vanished, people reduced their spending and begun to saving more. Banks were no longer willing to lend to customers or to other banks, which also damaged the businesses that had less accesses to finance new

investments. As the demand declined, companies started to reduce their production and lay off their employees. Increasing unemployment forced consumers to further reduce their consumer expenses and, to cite Foster & Magdoff, "a downward spiral of unknown duration began" (Foster & Magdoff, 2009).

During 2008 as the first crisis year, over 90% of the 61 countries belonging to the OECD, experienced decline in the volume of exports and imports by more than 10 percent (OECD, 2010). Not only OECD countries experienced decline. Sinn (2010) stressed that the most affected were the developed countries (USA, Iceland), then transition economies (the Baltic States and the Russian Federation) and developing countries that were directly dependent on inflows of foreign capital. By contrast, in countries less involved in international trade (Latin America, the Asian States), there were no such significant economic contractions (Sinn, 2010)

The following chart by World Trade Organization (in Figure 2.1) demonstrates the development of world exports and world GDP from 2005 until 2013. From this graph it is clear that the world export grew at a faster rate than gross domestic product. Export began to slow down in 2008, with a negative growth rate of both variables appeared a year later, when the growth rate of world export fell to -12.2%. In 2010, there was a recovery that, however, significantly weakened in following years.

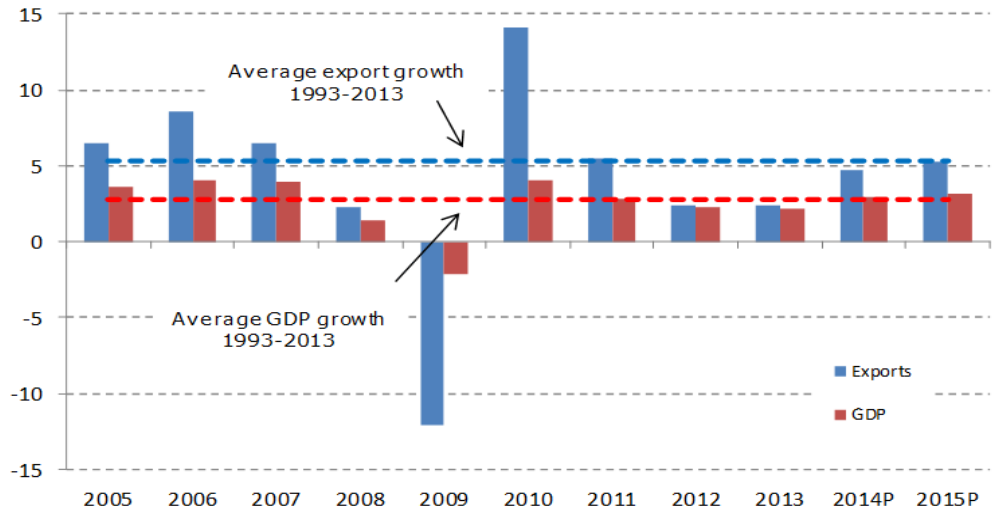

Figure 2.1 Development of world trade volume and GDP (in %) (WTO, 2014)

2.1.5 Impact on the Czech Republic

The Global Financial crisis has affected almost all economies in the world and has resulted in many state interventions as an effort for economic recovery. Also, the crisis resulted in a decline in production of many industrial sectors. With a respect to focus of this research on selected company in the Czech Republic, following subchapter discusses impact of the Global Financial crisis on Czech environment.

The economic output of Czech economy in terms of real GDP reflected the impact of Global financial crisis for the first time in 2008 (Mejstrik, 2013). As the Mejstrik's study emphasizes, Czech economy is highly dependent on the economic performance of EU countries, or more precisely on performance of Germany. This interdependence with the EU and Germany as the primary trading partner stems from the position of the Czech Republic as a small export-oriented economy and thus there is a high correlation between the results of the Czech Republic and EU's countries and Germany in particular (Mejstrik, 2013). The GDP decline has among other things resulted in lower sales of businesses, which usually reduces the investments. Poor financial performance of companies led to firms' restructuring and bankruptcy associated with redundancies, thus resulting in higher unemployment (Kohout, 2010).

In 2009, the fall in automotive and construction industry accentuated the economic slowdown (Mejstrik, 2013). Also, a collective redundancies occurred in certain industries. Generally, the investment activity declined in all industries throughout the economy (Kohout, 2010). Czech government implemented the fiscal stimulus measures in order to support the economy (Mejstrik, 2013). However, as a drop to -4.7% in the GDP (see Figure 2.2) indicated, these measures turned out to be insufficient. What needs to be highlighted, is the fact that government nor the Czech National Bank did not support or bailed out any of the Czech banks (Singer, 2012). Singer (2012) states that Czech banks reported high robustness during the crisis, mainly due to their high liquidity, capital adequacy and low proportion of investments in toxic assets.

As the Figure 2.2 suggests, the recession has reached two troughs. First through occurred in 2009. Second fall into trough appeared in 2012 and 2013, after a mild economic recovery in the previous years. As the study by Mejstrik (2013) identifies, while the recession in 2009 was caused by an external demand shock; in 2012 and 2013, the export was the factor that hindered further slump of economy. On the contrary, the domestic demand helped to prevent further fall in 2009 recession, but in 2012 and 2013, it was the main cause of this second recession (Mejstrik, 2013).

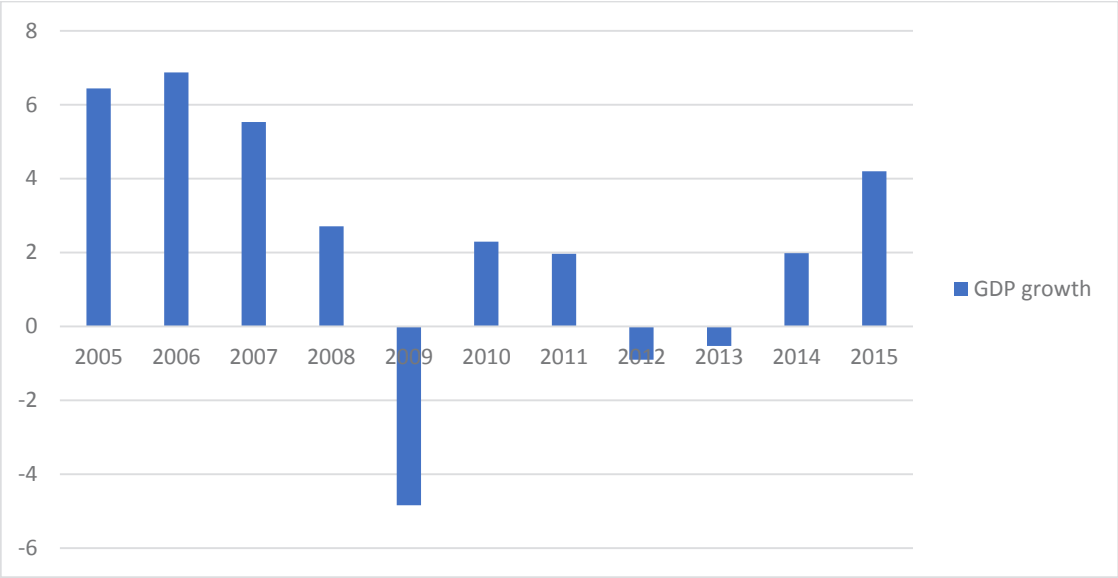

Figure 2.2 Development of the Czech Republic's rate of GDP growth (in %) (CSU.cz)

2.1.6 Impact on financial performance of enterprises

Enterprises are the backbone of the economy with a significant impact on local and national environment, unemployment and world GDP. Since they are integral part of the world economy, it was inevitable they will be affected by the effects of the Global Financial crisis as well.

Yap et al. (2014) in their definition of how companies were affected by the Global Financial crisis distinguishes between those companies which were severely affected and those which were affected less severely. According to Yep et al. (2014), while severely affected companies often found themselves in a position when they were not able to meet their obligations and had to stop their business, less severely affected companies had to adopt strict measures in terms of laying off employees, reducing employees' wages and other measures to decrease total costs.

Article by Koksal & Ozgul (2007) adds to this point, that firms and their managers are also more likely to delay or stop any investment projects in progress during the times of recession. Moreover, Ang, Leon & Kotler (2000) discuss the potential insolvency and bankruptcy resulting from the economic downturn, namely from issues linked to the economic downturn such as reduced customer demand and a decline in export resulting in ever-worsening cash position, falling profitability and accruing losses leading to problems with solvency.

The impact of the Global Financial crisis on financial performance has been studied and evidenced in a number of academic researches. Little et al. (2011) examined impact of the

Global Financial crisis on retail companies in the USA and their choice of strategy. They used Du Pont analysis of indicator ROA for a period of time 2006 – 2009 and compared financial performance of companies using differentiation and cost leadership strategy. The findings of that research showed that the Global Financial crisis had influenced the successfulness of chosen strategy since the companies pursuing cost leadership strategy outperformed firms pursuing differentiation strategy in those years.

In the context of Europe, Notta & Vlachvei (2014) tested differences in financial performance of Greek food manufacturing companies before and during the Global Financial crisis. They tested 128 large companies for a period of time 2006 – 2011 and found out significant differences in profitability in years 2009, 2010 and 2011. Also, they explained those differences in terms of the effects of market share, liquidity and extent of financial leverage companies employed.

Likewise, Dolenc et al. (2012) examined effects of the Global Financial crisis on the firms' performance across different industry sectors in Slovenia. They found that the financial performance of firms was indeed affected by Financial crisis since the results of the indicator ROE (return on equity) were significantly worse than in the pre-crisis period in most industry sectors, apart of mining and quarrying sector.

2.2 Financial performance

2.2.1 Definition of financial performance

In general terms, the *company's performance*, according to Kohler (2008) (cited by Chepkoech, et al., 2015) is "term applied to a part or to all the conducts of activities of an organization over a period of time; often with reference to past or projected costs efficiency, management responsibility or accountability or the like."

Term *financial performance* expresses the ability of firm to utilize resources in its possession (Taqi, 2014). Financial performance also measures the accountability of firm for the results of its policies, activities and operations within the specified period of time (Obaji, et al., 2015). Information about firm's performance is, according to Rees (1995), useful since it allows to

predict the capacity of company to generate enough cash for its operation from company's existing resources.

In order to gain an information about company's financial performance, financial performance has to be measured in the first place. Neely (2007) mentions three roles of financial performance measurement. According to Neely, firstly, financial performance measures should serve as a tool for financial management since with the use of such tool, managers could manage firm's financial resources in more efficient and effective way. Secondly, financial performance is a firm' major objective and thus it is necessary to measure and quantify it. And thirdly, financial information yielded from financial performance measures provide a "window" to company's specific operations and thus could be used as a mechanism for motivation and control (Neely, 2007).

Next subchapter focuses on financial performance measurement and its tools for assessment in more depth.

2.2.2 Financial performance measurement

Financial performance measurement, also called *financial statement analysis,* is an area that represents a significant part of the complex financial management because it provides feedback between the planned management decisions and reality (Needless et al., 2010). It is a subject closely linked to financial accounting which provides data and information for decision-making through the basic financial statements: balance sheet, income statement and statement of cash flows (Rees, 1995).

Robinson et al. (2015) define financial statement analysis as "the process of examining a company's performance in the context of its industry and economic environment". Financial statements analysis purpose is to provide information about a business unit and thus help to make a decision for management in order to improve firm's performance (Meigs & Meigs, 2003 and Brigham & Gapenski, 1994). Also, results of financial statement analysis provide an insight to company's financial position (Rees, 1995). Rees (1995) emphasises that financial position of company is influenced by the economic resources in its control, its financial structure, solvency, liquidity and ability to respond to changes in its business environment.

Objectives of financial statement analysis are all defined with a respect to firm's primary goal, to increase the wealth of company's stockholders (Needless et al., 2010). But, as Needless et

al. (2010) explain, this objective must be divided into categories. Those categories refer to each financial objective and related performance objective, as shown in Table 2.1.

Financial objectives	Performance objectives
Solvency	The company must be able to survive for many years.
Liquidity	It must be able to pay bills when due and meet unexpected needs for cash.
Cash-flow adequacy	It must generate sufficient cash through operating, investing and financing activity.
Profitability	It must earn a satisfactory net income.
Market strength	It must be able to increase stockholders' wealth.

Table 2.1 Categories of financial statement analysis objectives (Needless et al, 2010)

Meigs & Meigs (2003) and Dluhosova (2014) add that key objectives of financial statement analysis are to comprehensively assess company's level of financial position, its earnings performance, sufficient liquidity and level of indebtedness.

2.2.2.1 Users of financial statement analysis

According to Samuels, Brayshaw & Craner (1995), financial statement analysis results may be used by different groups of users.

Current and prospective shareholders use the results of the financial analysis to decide whether to buy, hold or sell equity shares in company. It also applies that the higher is the risk of purchasing company in terms of company's lower level of liquidity, solvency, turnover or profitability, the higher rate of return shareholders demand.

Banks and other providers of funds aim to find out from results of analysis whether the company is able to generate sufficient cash and thus whether is able to pay back its loans with interest in accordance with the agreed period of time.

Owners/directors are concerned if resources are being utilized effectively by management.

Managers' interest in results of the financial statement analysis is obvious as the results to a large extent speak of their ability to lead and manage. Managers also use outputs of analysis for their decision-making process concerning the financing, investment or dividend decisions.

Employees and their representatives will be concerned with profitability of the company and whether it affects their wages, benefits or employment security.

Government is particularly interested in the financial condition of the company to check if the company had complied with its statutory tax obligations, to use the information for statistical investigation and for the allocation of financial aid.

Business partners are most of all interested in solvency, liquidity and indebtedness as regards to the short-term period. In the long-term perspective, the results might provide insight into firm's stability and thus whether the firm is a suitable and sustainable partner (Samuels, Brayshaw & Craner, 1995).

2.2.2.2 Financial statements

Sources of data for the analysis are to be found in company's financial statements. Higgins (2011) argues that financial statements are an important window to reality. Statements provide an accounting picture of the company's operations and financial position and enable users of financial statements to evaluate the financial performance and position of company (Thomas & Ward, 2012).

There are four basic financial statements as a part of firm's annual report: (a) the balance sheet, (b) the income statement, (c) the statement of cash flow and (d) the statement of retained earnings (Brigham & Gapenski, 1994).

The balance sheet provides an overview on company assets and the sources of the money that was used to buy those assets (equity and liabilities).

Assets are summarized monetary expression for the firm's property and value of the firm's economic resources, which are further listed in ascending order of their liquidity. Assets consists of fixed assets – tangible, intangible and long-term financial assets; and current assets, which include inventory, receivables, short-term financial assets and accrued income (Benedict & Elliott, 2011).

Liabilities consist of shareholders' equity and other sources of funds which were used to acquire the assets. Liabilities are listed in ascending order in which they must be paid: first comes equity accounts which represents ownership and profit/loss; those items are never paid off, continues with reserves, long-term and short-term payables, bank obligations and accruals (Benedict & Elliott, 2011).

The equilibrium in the balance sheet is based on the so-called **balance equation** when assets = shareholders' equity and liabilities (Benedict & Elliott, 2011).

The income statement represents all items of income and expenses and reflects a specific period of time (usually 12 months). It shows profit or loss of company achieved in specific period of time from operating and non-operating activities. Profit is achieved when income is higher than expenses, loss is achieved when expenses exceed company's income.

However, as Benedict & Elliott (2011) point out, achieved profit or loss is only an accounting value, not an actual money available to the enterprise. Real money is the difference between cash receipts and cash expenditures, which are included within the statement of cash flows.

The statement of cash flows monitors actual cash flow, or in other words, movement of money into or out of a cash account over period of time (Higgins, 2011). This statement breaks down company's activities into three groups: operating, financing and investing activities. Such a breakdown provides an insight how these particular activities affect company's cash position. The statement of cash flows also helps answer questions as whether the company generates sufficient amount of money to fund its operations, whether the external financing is required or whether company have excess cash to repay its debts (Brigham & Gapenski, 1994).

2.2.3 Methods of financial statements analysis

This subchapter can be considered as a crucial part of the Literature review since the understanding of methods helps to conduct analysis and therefore evaluate firms' financial performance and impact of Crisis on it. Each method used to evaluation of financial performance is discussed.

2.2.3.1 Vertical analysis and Horizontal analysis

As Elliott & Elliott (2013) recommend, it is useful to gain an impression of financial structure of analyzed company at the very beginning of the whole process of analysis. To gain such impression, it is expedient to start with vertical analysis. Vertical analysis is a tool commonly used to assess financial structure of company (O'Regan, 2006). In vertical analysis, financial data from financial statements are expressed as a percentage of a relevant base figure (O'Regan, 2006). This percentage form allows to observe the proportion of financial statement items on a base figure; as a base figures, Alexander, Britton & Jorissen (2011) recommend to use amount of total assets and total liabilities in case of analysis of balance sheet, and amount of total revenues and total expenses in case of analysis of profit and loss account.

Horizontal analysis could be used as a complementary tool to vertical analysis. While vertical analysis informs us of company's financial structure over the years, horizontal analysis looks at the percentage of change that has occurred (Elliott & Elliott, 2013). As a base figure is often chosen the first analyzed year and then the other years are expressed as an index relative to the base year (Alexander, Britton & Jorissen, 2011). After both vertical and horizontal analysis are done, more detailed ratio analysis could be proceeded.

2.2.3.2 Ratio analysis

Many authors acknowledge ratio analysis as a useful and efficient way to assess company's financial performance (Alexander, Britton & Jorissen, 2011; Brigham & Gapenski, 1994; Elliott & Elliott, 2013 or Thomas & Ward, 2012). Financial ratio, according to Pandey (2005), is a mathematical way of expressing relationship between two accounting figures. Those accounting figures are usually taken either from the balance sheet, the income statement or the statement of cash flows.

However, the value of dividing one number by another is rarely informative. Such a value could only provide information when seen in a relevant context. Parker (2007) notes that it is necessary to compare this value to some benchmark standard. Ideally, it could be standard set by company itself, standard based on previous company's performance in past or industry standard based on performance of companies in the same industry as a subjected company (Parker, 2007).

Rees (1995) discuss the reasons for using ratio analysis. First of all, he highlights the simplicity of ratio analysis as a reason for its frequent occurrence within the financial performance

analysis, since ratios can replace complex financial statements and still provide accurate picture of firm's financial performance. O'Regan (2006) adds to this point that ratios are able to reduce complex financial data to a form which is easily understandable. Or, as Pandey (2005) argues, indicators of ratio analysis "help to summarise the large quantities of financial data and to make qualitative judgement of firm's financial performance". Another motivation to use ratio analysis is that it allows to compare company's performance with industry benchmark and thus identify what areas of company's performance are better or worse than it is usual in related industry. Lev (1969), according to Rees (1995), states that enterprises tend to drift towards industry average over time. Ratios might be also used as an input for decision-making models, such as Altman's Z-score used as prediction tool of potential corporate bankruptcy (Dluhosova, 2014).

As Yap et al. (2014) points out, there is a large number of ratios that can be calculated from financial data. However, most of them measure similar characteristics and thus there is no point to calculate them all. What is important, is the determination of what the dominant ratios are and focus on the calculation of them. Ratios are often divided into categories related to financial and performance objectives, as already presented above in Table 2.1. Table 2.2 shows extended form of financial statements objectives complemented with related category of ratios measuring given area. In following text, there are described ratios most frequently occurring in the relevant finance & accounting literature.

Financial objectives	**Performance objectives**	**Related group of ratios**
Solvency	The company must be able to survive for many years.	Solvency ratios
Liquidity	It must be able to pay bills when due and meet unexpected needs for cash.	Liquidity ratios
Cash-flow adequacy	It must generate sufficient cash through operating, investing and financing activity	Activity ratios
Profitability	It must earn a satisfactory net income.	Profitability ratios
Market strength	It must be able to increase stockholders' wealth.	Market ratios

Table 2.2 Financial statement analysis objectives and related ratios

Solvency ratios

Company has two main sources of finance, namely debt and equity (Brigham & Gapenski, 1994). Solvency ratios, also known as debt management or financing ratios, measures proportion between long-term debt and equity financing of company's business. Higgins (2011) points out that the right choice of optimal financial structure is the important effort of each company. Optimal financial structure is the proportion of debt to equity used to finance company's needs. This proportion is also known as financial leverage or gearing.

Equity is defined as "any issued share capital which has unlimited rights to participate in a distribution of either capital or profits" (O'Regan, 2006). As equity are considered capital items of balance sheet, retained profit/loss or current year profit/loss.

Another long-term source of finance for companies is debt. Debt is defined simply as "amounts owed to outsiders" (O'Regan, 2006). Debt financing is considered to be cheaper than equity financing. This is because, as Elliott & Elliott (2013) explain, providers of debt require lower return than equity investors, because equity investors are more risk averse and prefer fixed or floating securities. Another reason for debt financing as cheaper source of money is that interest paid for the bank loan is tax deductible (Brigham & Gapenski, 1994). However, the higher the firm's leverage, the higher it is the probability of financial distress (Andrade & Kaplan, 1998). Company, as Elliott & Elliott (2013) add, needs to find a balance between benefits and costs of debt financing as the debt financing is indeed cheaper but greater is the amount finance provided from borrowing, greater is the risk associated with indebtedness. Ratios to measure solvency are as follows:

i) **Equity multiplier**, calculated as

$$Equity\ multiplier = \frac{total\ assets}{shareholders'equity}$$

Equity multiplier compares total amount of company's assets to shareholders' equity used to finance these assets. Equity multiplier measures the financial leverage. Financial leverage expresses the degree of debt financing of company's property. In general terms, debt might contribute to higher returns in good years, but also increases company's losses in bad years (Brigham & Gapenski, 1994).

ii) **Debt ratio**, calculated as

$$Debt\ ratio = \frac{total\ debt\ (other\ sources)}{total\ assets}$$

Debt ratio represent the proportion of total assets funded by debt and thus it measures creditors' share on total capital by which company's property is financed (Dluhosova, 2014). Debt ratio can be viewed from perspective of both creditors and shareholders. While creditors prefer lower debt ratio because more debts company has, greater risk creditors must face in terms of possibility that the company will not be able to repay them, shareholders are willing to bear higher debt ratio as the higher leverage might magnify the profit (Brigham & Gapenski, 1994).

iii) **Shareholders' equity ratio**, calculated as

$$Shareholders'equity\ ratio = \frac{shareholders'equity}{total\ assets}$$

Shareholders' equity ratio is advised to calculate together with debt ratio since when the both results are summed, they together equal to 100%. Shareholders' equity ratio, according to Elliott & Elliott (2013), shows how much could shareholders claim in the event of possible liquidation of the company. Both Debt ratio and Shareholder's ratio's results are multiplied by 100 and expressed as a percentage.

iv) **Debt to equity ratio**, calculated as

$$Debt\ to\ equity\ ratio = \frac{total\ debt\ (other\ sources)}{shareholders'\ equity}$$

According to Alexander, Britton & Jorissen (2011), higher Debt to equity ratio indicates higher financial risk for company as it implies that company used high amount of loans to finance its property and thus has to face higher interest charges and its fluctuation over time as the interest rates might possibly change over time. Recommended value for this indicator is between 80% - 120 % (Dluhosova, 2014).

v) **The interest cover ratio**, calculated as

$$The\ interest\ cover\ ratio = \frac{EBIT}{total\ interest\ charges}$$

The interest cover ratio measures how many times firm's operational profit could cover interest charges that needs to be paid to creditors. In other words, it express the "safety margin" between operational profit and interest charges (Alexander, Britton & Jorissen, 2011).

Liquidity ratios

According to Alexander, Briton & Jorissen (2011), term liquidity refers to ability of company to generate enough money from its current operations to repay its current debt. Liquidity ratios examine whether firm has enough cash on hand to exploit opportunities and pay its bills, or in other words, whether firm remains liquid (Brigham & Gapenski, 1994). As Benedict & Elliott (2011) stress, firm might suffer from liquidity problems when it possesses insufficient working capital (i.e. current assets less current liabilities). Hence the ratios focus on how many times the current assets cover current liabilities and how many days it would take to convert each type of current assets into cash.

i) **Current ratio,** calculated as

$$Current\ ratio = \frac{current\ assets}{current\ liabilities}$$

Current ratio is the most common tool to assess company's liquidity. Current ratio assesses relationship between current assets as the short-term sources of cash and current liabilities which express amounts to be settled in the nearest future (Elliott & Elliott, 2013). Value of such relationship/ratio needs to be greater than 1 since that would mean that amount of current assets is greater than amount of current liabilities and company is thus able to meet its short-term obligations. Some authors even recommend ideal value of ratio to be 1.5 – 2, however, nature of the industry has to be taken into consideration (Dluhosova, 2011; O'Regan, 2006 or Thomas & Ward, 2012). Thomas & Ward (2012) adds that ratio lower than 1.5 is undesirable since it might indicate very low liquidity of company and thus possible insolvency. This ratio is also

called medium-term liquidity test because current assets might include some of the items of property which are difficult to promptly transfer into cash, for instance raw materials, work-in-progress or damaged items of inventory (Alexander, Britton & Jorissen, 2011).

ii) **Quick ratio**, calculated as

$$Quick\ ratio = \frac{current\ assets - inventory}{current\ liabilities}$$

Quick ratio, also called Acid test or short-term liquidity test, reflects company's ability to pay off its short-term obligations more accurately because it excludes inventory, as the balance sheet item which take considerable time to transfer into cash (Benedict & Elliott, 2011). Because of the exclusion, Dluhosova (2014) recommends the ideal value of Quick ratio lower than the value of Current value; from 1 to 1,5.

iii) **Cash ratio**, calculated as

$$Cash\ ratio = \frac{cash}{current\ liabilities}$$

Even more accurate ratio to calculate current liquidity of company is expressed by Cash ratio. This ratio takes into consideration only the most liquid part of firms' assets, the cash in hand and in bank accounts. Dluhosova (2014) recommend ideal value of this indicator to be 0.2.

Activity ratios

This category could be interpreted in two ways. Firstly, activity ratios inform the company how effectively manages its working capital (inventory, payables and receivables) (O'Regan, 2006). As O'Regan (2006) argues, such indicators quantify trading activity of the company so we can tell there is direct relationship between trading activity (revenues) and related trade receivables, inventory or trade payables. Secondly, indicators of activity ratios reflect company's asset management. Such indicators measure turnover of assets. Turnover shows how many times company "turn over" (sell) its assets during the accounting period (Thomas & Ward, 2012).

Indicators can examine the efficiency of purchasing management by calculating turnover ratio of inventory or how efficiently are used fixed and total assets. Also, indicators can evaluate the efficiency of credit management by calculating collection period of receivables and payment period of payables (Benedict & Elliot, 2011).

i) **Inventory turnover**, calculated as

$$Inventory\ turnover = \frac{revenues}{inventory}$$

Inventory turnover express number of times inventory is sold during the accounting year. By inventory is meant amount of finished goods (Thomas & Ward, 2012). This indicator also examine efficiency of purchasing management (Benedict & Elliot, 2011). Increase in this indicator indicates improvement in inventory management and means that goods have been sold (turned over) more often. Benedict & Elliott (2011) also note that more often company turns over its inventory, greater is the profit; either for the profit margin resulting from sales, but also because of lower costs of storage, insurance or losses from obsolescence. Furthermore, this indicator in reversed form (inventory in nominator and revenues in denominator) multiplied by number of days in accounting year (usually 365 days) could be used to measure the length of time items are held in inventory before sold (O'Regan, 2006).

ii) **Average collection period**, calculated as

$$Average\ collection\ period = \frac{trade\ receivables}{revenues} * 365$$

Average collection period measures the length of time taken by company's customers to pay their invoices and bills (O'Regan, 2006). Trade receivables represents amount of money which formally belongs to company, however, company cannot use them since they have not been cashed in yet. O'Regan (2006) argues that company's best interest it to keep Average collection period as short as possible in order to cash in such a money for further use.

iii) **Creditors payment period**, calculated as

$$Creditors\ payment\ period = \frac{trade\ payables}{revenues} * 365$$

This indicator measures number of days it takes firm to pay to its suppliers. Unlike previous indicator, according to Benedict & Elliott (2011), company's best interest is to keep this period as long as possible. Rationale behind this incentive is that company seeks to maximize the benefits associated with the disposition of financial resources (Benedict & Elliott, 2011).

iv) **Asset turnover**, calculated as

$$Asset\ turnover = \frac{revenues}{total\ assets}$$

Previous indicators looked at efficiency of working capital management. Asset turnover aims to evaluate efficiency of overall asset management (O'Regan, 2006). Asset turnover aims to assess relationship between assets employed in business operation and revenues yielding from it.

Profitability ratios

Profitability ratios express ratio of the final profit or loss achieved by the business activities to a particular input, either to total assets, equity or sales. All profitability ratios can be similarly interpreted as they show how much units of profit (in currency terms) falls on 1 unit of particular input in denominator.

i) **Return on capital employed**, calculated as:

$$ROCE = \frac{EBIT}{shareholders'equity + long\ term\ liabilities}$$

Return on capital employed indicates how effectively and efficiently company uses the funds provided by shareholders and from other sources, mainly by banks in form of long-term loans. As Alexander, Britton & Jorissen (2011) point out, ROCE in fact measures the return on capital

invested in company. It provides an overview of company's profitability during given accounting period and is often used to compare profitability of different companies (Thomas & Ward, 2012).

ii) **Return on equity**, calculated as:

$$ROE = \frac{EAT}{shareholders'equity}$$

While ROCE is used to measure overall performance of company because it reflects total capital invested in company, ROE is used to measure return only on shareholder's funds (Elliott & Elliott, 2013). This might be useful when shareholders need to know the value of return on their investment to evaluate its profitability. Moreover, the use of EAT (net profit) instead of EBIT (operating profit) is recommended (Thomas & Ward, 2011) as shareholders are more likely to know the value of profit available for them in form of dividends, i.e. net profit available to them after taxation.

iii) **Return on assets**, calculated as:

$$ROA = \frac{EBIT}{total\ assets}$$

Return on total assets shows how effectively are company's assets utilized by management (Thomas & Ward, 2011). ROA, unlike ROCE, is not influenced by firm's financial structure and focuses on profitability of total assets. Also, according to Parker (2007), ROA is not influenced by effect of taxation as it uses the value of operating profit (EBIT) in numerator.

iv) **Net profit margin**, calculated as

$$Net\ profit\ margin = \frac{EAT}{sales}$$

Net profit margin reflects what percentage of sales is profit, or in other words, how much of every unit of revenue is being kept as earnings (Thomas & Ward, 2011). As Dluhosova (2014) suggests, this indicator should be used for comparison between other companies within the same industry and for comparison in time.

Comparative and trend analysis

Comparative and trend analysis is another useful tool while conducting financial statement analysis. In order to perceive a value from ratio analysis, it is necessary to compare achieved results to a particular benchmark. Comparative analysis allows us to compare results of ratio analysis with average ratios for industry (known as industry benchmark) or with selected competitors and thus put results of such analysis in relevant context (Brigham & Gapenski, 1994).

Ratio analysis is advised by many authors (Brigham & Gapenski, 1994; Diamond, 2006; Dluhosova, 2010) to be complemented by trend analysis in order to provide an insight whether firm's situation is improving, is stable or is deteriorating. This is achieved by comparing results of ratio analysis with previous years' results.

2.2.3.3 Du Pont analysis

Previous categories of ratio analysis indicators provided detailed assessment of company's profitability, liquidity, activity (asset management) and solvency. However, as Brigham & Gapenski (1994) emphasize, ratio analysis does not offer any relations between those indicators nor provides an overview of company's financial condition.

Du Pont analysis by using a method of decomposition of selected indicators attempts to find and explain how categories of ratio analysis might be tied together (Brigham & Gapenski, 1994).

Decomposition of ROA

In 1918, engineers at chemical company Du Pont found a relationship between two commonly used ratio analysis indicators – operating profit margin and asset turnover (Little, 2011). They noticed that product of those two indicators equals to Return on assets (ROA). Thus indicator ROA could be decomposed as:

$$ROA = \frac{EBIT}{total\ assets}$$

$$ROA = \frac{EBIT}{revenues} * \frac{revenues}{total\ assets}$$

$$= operating\ profit\ margin\ *\ assets\ turnover$$

The value of ROA, as Brealey, Meyers & Allen (2014) explain, depends on company's production and marketing proficiency.

Decomposition of ROE

Later, in 1970, model of Du Pont analysis was modified in order to reflect key indicators from all four categories of ratio analysis introduced before. This modification allowed to identify relationship among four key indicators which helps to summarise company's financial condition (Little et al., 2011).

On the basis of that, Robert C. Higgins (2011) suggests to use return on equity (ROE) and its decomposition as a "yardstick" of financial performance. Return on equity (ROE) defined as

$$ROE = \frac{EAT}{shareholders'equity}$$

compares net income available to shareholders (EAT) to equity invested by firm's shareholders. It measures return to owners on their investment or in other words, efficiency of owners' capital employed by company (Higgins, 2011).

ROE could be further decomposed in order to analyze company's performance development in more depth, as shown in Figure 2.3. Indicator ROE can be broken down into three

sub indicators, each of them represents chosen area of company's operation. Net profit margin represents company's ability to generate profit from its sales, Asset turnover represents managers' ability to utilize firm's asset effectively and leverage represents the extent of debt employed (Brealey, Meyers & Allen, 2014).

Du Pont analysis in form of ROE decomposition might be beneficial for company's management since it allows to analyze firm's performance and suggest the way the performance could be further improved (Brigham & Gapenski, 1994).

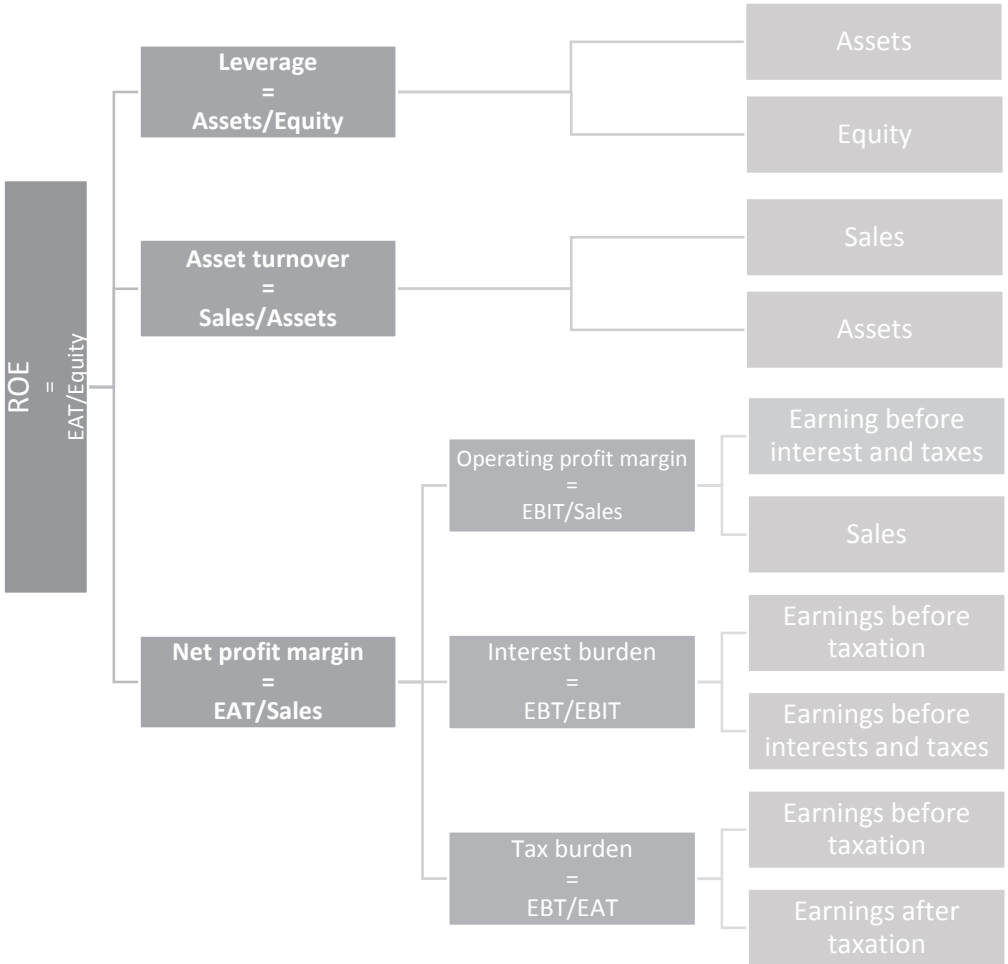

Figure 2.3 Scheme of ROE decomposition

3 METHODOLOGY

The aim of this dissertation is to answer the question whether and to what extent have the Global Financial crisis influenced the selected case company during the years 2007 - 2011 in terms of impact on company's financial performance. Research question will be answered on the basis of findings of conducted analysis. In order to evaluate financial performance of selected company, this dissertation will adopt methods of financial statement analysis as this approach of performance evaluation prevails among many authors. To assess influence of the Global financial crisis on selected company's financial performance, results of financial statement analysis will be discussed with company's Financial manager in order to interpret these results and to answer the questions of impact of crisis on financial performance.

For the performance evaluation part, secondary data from company's annual reports will be used. Such data will be further analysed in order to determine company's financial structure and to evaluate financial performance through its key areas; profitability, liquidity, activity and solvency. Thus, this part of research will be quantitative.

In order to answer the research question, the result from financial statement analysis will be interpreted on a basis of primary data obtained from structured interview with Financial manager. In the interview, the results of analysis will be discussed in more depth as the interviewee will provide an insight to company's operation. To decide what research philosophy, approach and strategy this dissertation will adopt, the research onion is used, as shown in Figure 3.1 (Saunders, Lewis & Thornhill, 2012)

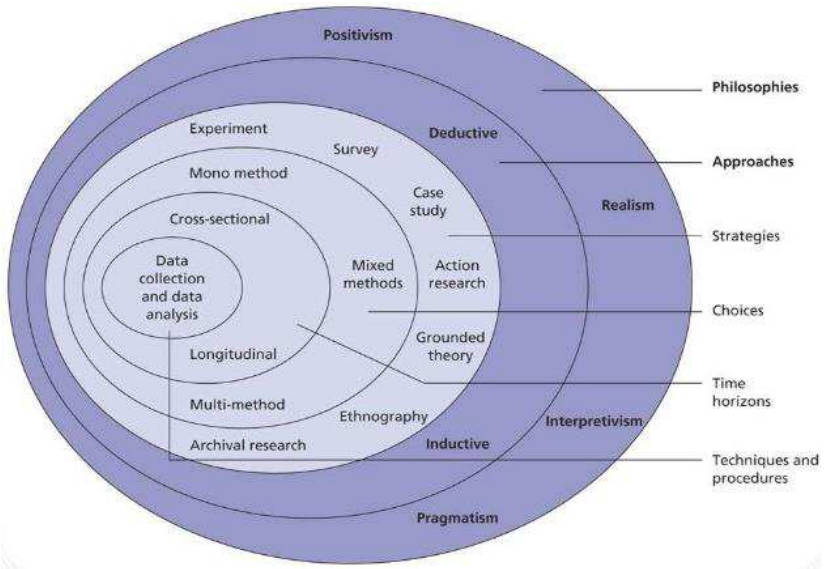

Figure 3.1 Research onion (Saunders, Lewis & Thornhill, 2012)

3.1 Research philosophy

First of all, it is necessary to determine how the research shall be conducted. The choice of research philosophy allows us to shape our understanding of research questions, methods and the way data will be analysed and interpreted (Saunders, Lewis & Thornhill, 2012). The research philosophy is basically the way we view the world in form of our assumptions as those assumptions will support our decision-making process when looking for appropriate research strategy and methods to collect data (Saunders, Lewis & Thornhill, 2012).

As showed in Figure 3.1, Saunders, Lewis & Thornhill (2012) consider most common philosophies in business research as following: positivism, interpretivism, pragmatism and realism.

Positivism philosophy of research is focused on application of natural science methods to study of social reality. Interpretivism, unlike positivism, suggests that the same scientific model used for natural science cannot be applied for social sciences as subject of social sciences; people and their institutions, are fundamentally different from subjects in natural sciences and scientist should look at the subjective meaning of such subjects (Bryman & Bell, 2011). Pragmatism is mainly concerned with the meaning of the idea (or research result) and its consequences (Saunders, Lewis, Thornhill, 2012).

A realism philosophy tells us there is an external reality independent on our minds. Phillips (1987) (cited by Maxwell, 2012) defines realism as "the view that entities exist independently of being perceived, or independently of our theories about them." Realism is divided into two forms: empirical realism and critical realism (Bryman & Bell, 2011). While empirical realism assume that reality could be understood, critical realism suggests that reality could be understood only if we identify structures in terms of patterns or events behind this reality (Bryman & Bell, 2011). Critical realism could help to gain more accurate and detailed analysis of firm and its development (Eriksson & Kovalainen, 2015).

This dissertation will adopt realism as a research philosophy. As this study will analyse financial data, which provide an insight of firm's operation and thus display reality in form of numbers, and objective of this dissertation is to identify what drives the change behind those numbers in order to evaluate financial performance and assess the impact of the Global Financial crisis on the financial performance of selected company, this research philosophy is appropriate.

3.2 Research approach

Research approach presents the logic adopted when conducting research. As indicated in Figure 3.1, approach to research might be either deductive or inductive. Deductive approach, simply put, derives particular observations or findings from theory. Inductive approach, in turn, generates theory or general conclusion from observations/findings (Bryman & Bell, 2011) Deductive approach thus might derive particular results on a basis of knowledge of chosen topic, and those result might be, or not, in accordance of such topic or theory. On the other hand, induction is based on analysis of particular entities and generalise them into theory.

Since this research will analyse financial data in order to make conclusions about financial performance and impact of financial crisis, inductive approach seems to be correct to use.

3.3 Research strategy

Research strategy is, according to Saunders, Lewis & Thornhill (2012), "a plan of how a researcher will go about answering her or his research question". There are many research strategies, such as experiment, survey, archival research, case study, ethnography, action research, grounded theory or narrative inquiry (Saunders, Lewis & Thornhill, 2012).

Case study is considered as a best way to conduct this research. Case study is described as detailed and intensive examination of a particular case (Bryman & Bell, 2011). As Quinlan (2011) suggests, case study method as a research strategy could be conducted when the research is located in bounded entity, in a specific space or place or in a particular incident. Case study should also provide in-depth analysis of given problem as it could not rely on large population in terms of numeric size or geographic spread or of survey research. Case study might collect data through verbal reports, personal interview, financial reports, archives or operating statements, thus qualitative, quantitative and even mixed both data sources are commonly used while conducting case study (Ghauri, 2010).

Since this research will focus on evaluation of financial performance of single company in Czech Republic and impact of the Global financial crisis on it, case study approach is the most suitable way to conduct this research.

3.4 Case company

For the purpose of conducting this research as a case study of single company, chosen company is introduced in this subchapter along with basic information in Table 3.1.

The case company of this research is SMART TRADING COMPANY s.r.o. (STC s.r.o.) based in Ostrava, Czech Republic. STC s.r.o. is a medium-sized, well-established on market and dynamically developing engineering company. The main personality of the company is Ing. Michal Fuciman, company's owner and Managing Director, with numerous previous managerial and directing experience, such as the Commercial Director of the Radegast brewery, one of the largest brewery on the Czech market.

Company name:	SMART TRADING COMPANY s.r.o.
Legal form:	Limited company (Ltd.)
Head office address:	U Statku 218 Ostrava – Bartovice 717 00 Czech Republic
Business activities:	Production of mechanical components using CNC technology, mainly from thin metal sheets
Owners of the company:	Michal Fuciman (50%) Libor Winkler (50%)
Establishment of the company:	21 October 2001
Annual turnover:	236 305 000 (2014)
Number of employees:	198 (2014)

Table 3.1 Basic information about SMART TRADING COMPANY s.r.o. (Annual report, 2014)

In 2014, company realized turnover of almost CZK 237 mil. STC s.r.o. employed 198 permanent employees and closely cooperated and continues to cooperate with its subsidiary, Smart Painting s.r.o. Company produces components made mainly of thin metal sheets. Components are used by company's customers as a part of electronic equipment for the energy renewable sources (switch cabinets used in photovoltaic), also as a part of assemblies for telecommunications and electronics (outdoor and indoor server & data cabinets). Others products include, for instance, advertising panels or industrial shelving systems. Most of the

customers are from Europe (92%), only 8% customers are based in the Czech Republic (Annual report, 2014).

3.4.1 Industry division

SMART TRADING COMPANY s.r.o. is included under classification of Ministry of Industry and Trade of the Czech Republic to industry division CZ-NACE 25: Manufacture of fabricated metal products, except machinery and equipment (Annual report, 2014). According to Ministry of Industry and Trade of the Czech Republic, economic activities of the division CZ-NACE 25 is characterized by a wide range of products and technologies. Their common characteristic is the original material input in terms of semi-finished metal products (Ministry of Industry and Trade, 2014). Products in this section are intended either for final consumption or used as inputs for the production of mechanical and electrical engineering, construction and automotive industries. Largest companies of this industry division (based on revenues) are MORAVIA STEEL a.s. and ŠKODA PRAHA INVEST s.r.o.

Financial data of division CZ-NACE 25, where company falls under, retrieved from Ministry of Industry and Trade of the Czech Republic's official statistics are employed in order to use them as an industry benchmark value in the chapter *4.1 Financial statement analysis of SMART TRADING COMPANY s.r.o.* of this research and are further referred to as Industry benchmark or simply, Industry average.

3.5 Methods of data collection

As already mentioned before, this study uses both quantitative and qualitative approach of data collection. Firstly, quantitative secondary data from firm's financial statements are employed and further analysed. Methods of financial statement analysis, as they were introduced and described in subchapter *2.3.3 Methods of financial statement analysis*, are used with a purpose of evaluation of STC s.r.o.'s financial performance. Secondly, qualitative primary data are collected from structured interview with financial manager of selected company. Structured interview complements the results of financial statement analysis in a way it interprets achieved results in the context of company's business operation. Also, questions regarding impact of Financial crisis on financial performance and in what way the crisis influenced company and its financial performance are asked.

3.5.1 Financial statements as a source of secondary quantitative data

As mentioned in Literature review, financial statements are essential sources of data for financial statement analysis. Data in financial statements are secondary and quantitative.

3.5.1.1 Secondary data

Secondary data are described as data which have been already collected before by others (Sekaran & Bougie, 2010). As Bryman & Bell (2011) point out, secondary data are useful source of information as they provide many advantages while conducting a research. Such data are usually of high quality, are easy to be collected without any costs and provide opportunity for longitudinal research as they are often collected over longer period of time. However, secondary data also bring drawbacks since the researcher usually takes some time to be familiar with the dataset because it was not him who collected the data (Bryman & Bell, 2011). Also, researcher has no control over quality of data, but this is not an issue in case of this research as the financial statements to be used as sources of data were approved by auditor before published and thus are of high quality.

3.5.1.2 Quantitative data

Quantitative data are data in numerical form. According to Cameron & Price (2009), it is easier to analyze quantitative data than qualitative data as they could be analyzed with a use of statistical analysis.

3.5.2 Structured interview as a source of primary qualitative data

Despite the fact that the data from financial statements, after they are analysed, provide a picture of financial performance over the years 2007 – 2011 and thus answer research objectives (1), and (2) (see in Introduction chapter), they cannot itself provide a complex answer to objective (3), since the financial statement offers just the financial data. Therefore, there is a need to employ qualitative data in order to assess the impact of Global Financial crisis on a case company and its financial performance. By doing so, an insight from company perspective is achieved. Thus, structured interview as a source of qualitative and primary data is employed.

As Sekaran & Bougie (2010) explain, while conducting structured interview, unlike unstructured interview, the interviewer has set of previously planned questions and knows what issues need to be clarified with the use of interview and thus, as Bryman & Bell (2011) add, they are usually very specific.

Structured interview questions in this research were created on the basis of the results achieved from financial statement analysis with a purpose to expand the findings author found as the most important and to further interpret them. Questions are listed in Appendix 4. Interviewee is the head of the Financial Department of SMART TRADING COMPANY s.r.o.

Interview, and structured interview as one of their types, is considered as a source of primary data and qualitative data (Sekaran & Bougie, 2010).

3.5.2.1 Primary data

Sekaran & Bougie (2010) describe primary data as a data researcher obtained by himself either by observing subject of her or his research or by carrying out surveys or interview.

3.5.2.2 Qualitative data

While quantitative data, simply put, could be expressed numerically, qualitative data are expressed in form of words (Bryman & Bell, 2011). Also, since the qualitative data are often obtained from interviews, they have better emphasis on understanding of given topic (Ghauri & Grønhaug, 2010).

3.6 Limitations

This research consists mainly of secondary data analysis because of its primary focus on assessment of Global Financial crisis' impact on a case company via the financial performance evaluation. Such data are obtained from firm's financial statement, however, data are only in form of accounting figures and thus do not provide any further explanation in terms of company's background, environment or operations.

Because of lack of information from inside of the company, additional method of data collection – structured interview, was adapted. However, conduction of structured interview was limited by several factors. Firstly, author of this research studies abroad and thus only option that suited the author of this research and interviewee was to conduct the interview via e-mail. Secondly, this research focuses on the years before and immediately after the outbreak of the Global financial crisis, on the period 5 – 9 years ago, therefore the interviewee might be unable to recall particular events in that period. Also, the interview is held only with one person, providing only

one point of view, although the interviewee is the head of Financial Department of case company and thus should offer sufficient interpretation of results achieved from analysis.

This research is also limited by lack of time and experience of its author to conduct more thorough analysis, however, the author believes that these limitations do not influence the reliability and variability of data observed.

4 FINDINGS

The aim of this chapter is to analyse financial performance of company STC s.r.o. during the years 2007 – 2011.

4.1 Financial statement analysis of STC s.r.o.

In order to evaluate financial performance of company STC s.r.o. during the Global Financial crisis, the analysis of financial statements of selected company will be conducted with a purpose to gain an overview of the financial performance during the years 2007 – 2011.

Analysis will begin with vertical and horizontal analysis of the balance sheet and profit/loss account, then the overall financial performance will be analyzed via ratio analysis through its four areas – solvency, liquidity, activity and profitability. And finally, factors influencing financial performance will be assessed with the use of Du Pont analysis. All numerical data are presented in thousands of CZK, unless stated otherwise.

4.1.1 Vertical and horizontal analysis

Vertical and horizontal analysis of Balance sheet and Profit and loss account is carried out with a purpose to determine company's property and financial structure, structure of revenues and expenses and to gain an overview of trends of financial statement items' development. Non-shortened versions of vertical and horizontal analysis are to be found in Appendix 2.

4.1.1.1 Balance sheet

Looking at the Figure 4.1, we are able to observe basic information about the property structure of the company STC s.r.o. and trends in its development over the years (see Table 4.1).

Fixed assets account for two-thirds of total assets, with the tangible fixed assets as its largest component. This corresponds with a business nature of selected company as a manufacturing company. As Figure 4.1 suggests, in the first three monitored years, proportion of fixed assets (in blue shades) to current assets (orange shades) remains stable, with around 60% of fixed assets to 40% of currents assets. In 2010, however, this proportion becomes almost equal as one

of the inventory items, *Work in-progress and semi products* (see in non-shortened form of balance sheet it Appendix 1), grew rapidly as a consequence of increased production. Such a surge in production is further analyzed as a part of Ratio analysis and reasons behind it are discussed in chapter Discussion. In 2011, proportion of fixed and current assets seems to adjust back to its previous level.

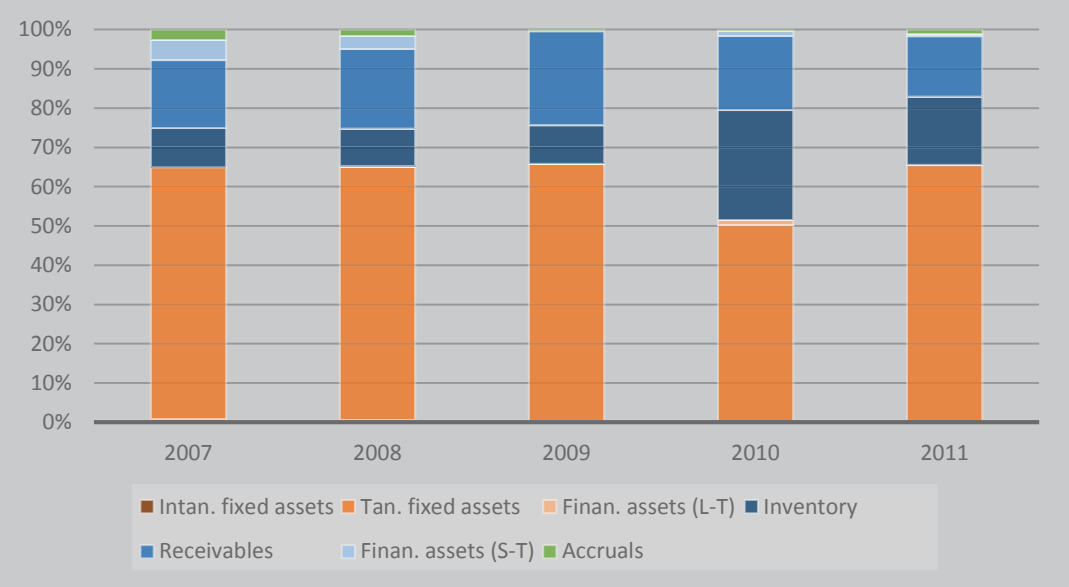

Figure 4.1 Vertical analysis of assets

	2007	2008	% change for 07/08	2009	% change for 08/09	2010	% change for 09/10	2011	% change for 10/11
TOTAL ASSETS	**291 923**	**327 310**	*12.12*	**310 785**	*-5.05*	**411 829**	*32.51*	**337 753**	*-17.99*
Fixed assets	189 606	213 324	*12.51*	206 332	*-3.28*	211 835	*2.67*	221 372	*4.50*
Current assets	94 456	108 504	*14.87*	102 984	*-5.09*	198 889	*93.13*	112 902	*-43.23*
Accruals	7 861	5 482	*-30.26*	1 469	*-73.20*	1 105	*-24.78*	3 479	*214.84*

Table 4.1 Horizontal analysis of assets

As regards the financial structure, and that is more important, there is a downward trend of shareholder's equity. Apart of the year 2010, every year's proportion of shareholders' equity (see in Figure 4.2 in orange shades) to other sources (blue shades) is decreasing in favor of the other sources. In years 2007 – 2009, bank loans accounted for almost 50% of total liabilities. Together with outstanding payables, 80% of company's property was financed by debts. This also means that company was highly leveraged. As already mentioned in Literature review, a

high level of debt may result in problems with repayment of interest charges associated with debt and following solvency problems.

Company's inability to meets its obligations is observable in balance sheet, with the total amount of payables in 2011 which more than doubled comparing to the total amount of payables in 2007 (see Appendix 2), bearing in mind that amount of total liabilities increased just slightly. Year 2010 was an exception in before outlined development, since this year was the most profitable year in monitored period 2007 – 2011. With CZK 52 million of profit in 2010, share of equity again increased, but only for the mentioned year of 2010 since following accounting year 2011 ended in deep loss (see Table 4.3 and Table 4.9) and proportion of shareholders' equity shrank to its minimum.

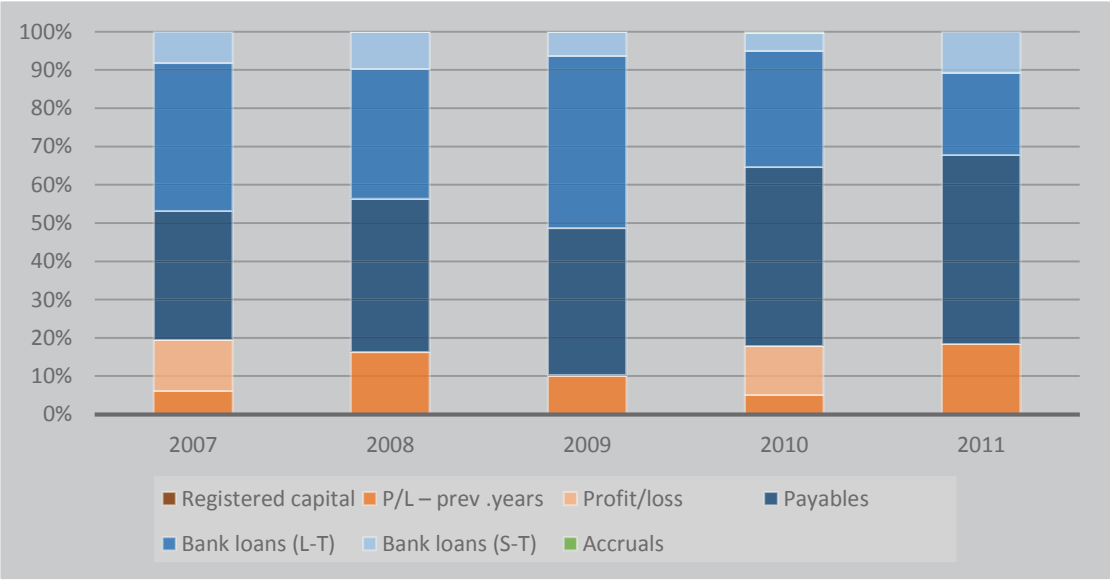

Figure 4.2 Vertical analysis of liabilities

	2007	2008	% change for 07/08	2009	% change for 08/09	2010	% change for 09/10	2011	% change for 10/11
TOTAL LIABILITIES	**291 923**	**327 310**	*12.12*	**310 785**	*-5.05*	**411 829**	*32.51*	**337 753**	*-17.99*
Equity	56 850	32 600	*-42.66*	21 026	*-35.50*	73 520	*249.66*	12 038	*-83.63*
Other sources	235 073	294 623	*25.33*	289 611	*-1.70*	337 648	*16.59*	325 715	*-3.53*
Accruals	0	*87*	-	148	*70.11*	661	*346.62*	0	*-100.00*

Table 4.2 Horizontal analysis of liabilities

4.1.1.2 *Profit and loss account*

In terms of generated revenues, it is evident that company has strong manufacturing character as at least 80% of revenues are represented by *production*, particularly *revenues from own products and services*. In relative terms, proportion of *revenues from own products and services* on total revenues remains more or less stable, although in absolute terms, this item showed a major increase in one year as production in 2010 grew almost by 150%, from CZK 214 358 thousands in 2009 to CZK 534 891 thousands in following year. Moreover, with respect to the development of total revenues, one would say that company was not affected by the financial crisis to a great extent as the amount of total revenues showed growing trend, apart a small drop in 2008 and adjustment after exceptional year of 2010.

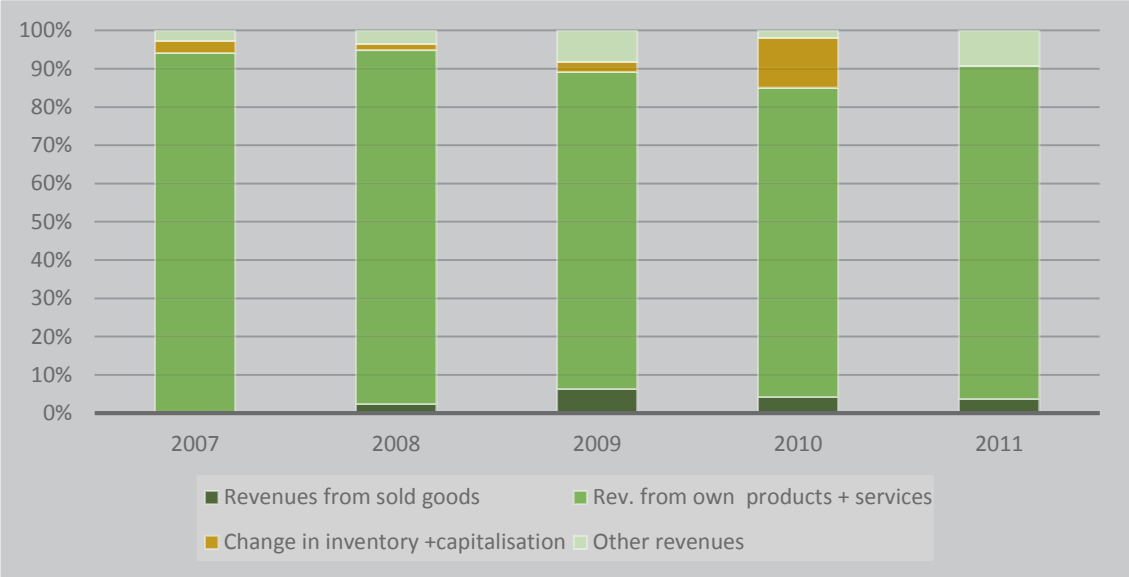

Figure 4.3 Vertical analysis of revenues

	2007	2008	*% change for 07/08*	2009	*% change for 08/09*	2010	*% change for 09/10*	2011	*% change for 10/11*
Revenues from sold goods	0	5 135	-	15 960	*210.81*	23 939	*49.99*	14 537	*-39.27*
Production	223 204	202 256	*-9.39*	214 358	*5.98*	534 891	*149.53*	294 648	*-44.91*
Other revenues	6 327	7 736	*22.27*	20 765	*168.42*	10 653	*-48.70*	35 495	*233.19*
TOTAL REVENUES	229 531	215 127	*-6.28*	251 083	*16.71*	569 483	*126.81*	344 680	*-39.47*

Table 4.3 Horizontal analysis of revenues

Regarding the expenses, *production consumption* accounts for the largest share of total expenses. We can observe there is a similar development of this item to the development of *production* on revenues side; that is fairly stable first three years followed by rapid increase in 2010 and plunge in 2011, in absolute terms. In relative terms, proportion of *production consumption* on total expenses is gradually decreasing as the significance of *personnel expenses*, *interest expenses* and *other expenses* increases over the years.

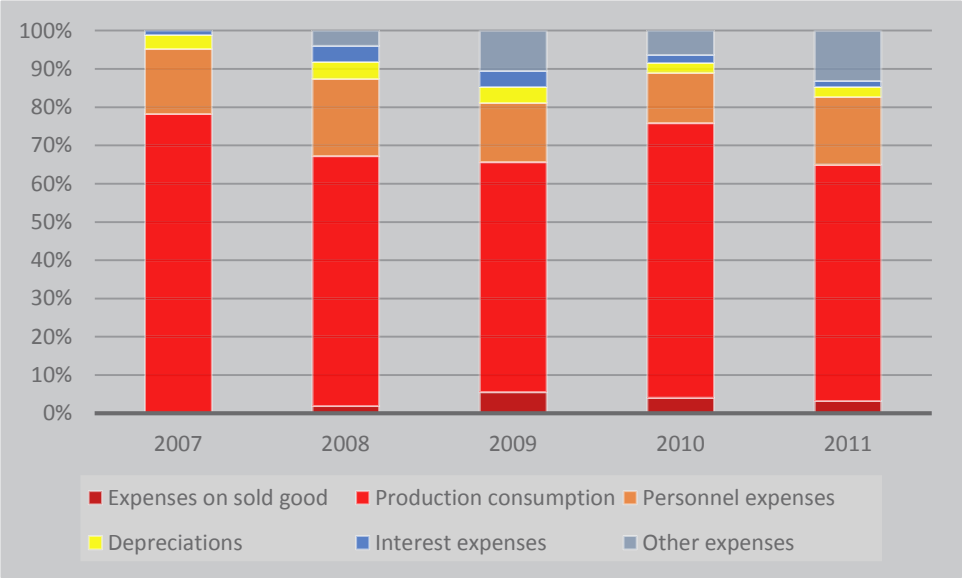

Figure 4.4 Vertical analysis of expenses

	2007	2008	*% change for 07/08*	2009	*% change for 08/09*	2010	*% change for 09/10*	2011	*% change for 10/11*
Expenses on sold good	0	4 519	-	14 392	218.48	20 809	44.59	13 272	*-36.22*
Production consumption	149 759	155 853	4.07	157 850	1.28	363 328	130.17	250 793	*-30.97*
Personnel expenses	32 541	48 291	48.40	40 981	-15.14	67 095	63.72	71 526	*6.60*
Depreciantions	6 917	10 541	52.39	10 564	0.22	13 103	24.03	10 732	*-18.10*
Interest expenses	2 324	9 916	326.68	10 746	8.37	10 668	-0.73	5 835	*-45.30*
Other expenses	-12 423	9 515	-176.59	28 124	195.58	32 056	13.98	54 009	*68.48*
TOTAL EXPENSES	179 118	238 635	33.23	262 657	10.07	507 059	93.05	406 167	*-19.90*

Table 4.4 Horizontal analysis of expenses

Table 4.5 provides summarized overview of profit/loss in the period 2007 – 2011 and its individual elements. From the overview is clear that in first monitored year 2007 company achieved profit, but next two following years ended up in losses. There is observable recovery in the year 2010 attributed to major surge in the amount of sales activity, however, amount of total revenues declined in 2011 by nearly 40% resulting in deep loss of this year.

	2007	2008	2009	2010	2011
Operating profit/loss	56 128	-13 339	1 253	79 976	-43 017
Financial profit/loss	-5 715	-10 169	-12 827	-17 552	-18 470
Extraordinary profit/loss	0	0	0	0	0
Profit/loss of current accounting period (EAT)	**39 341**	**-24 250**	**-11 574**	**52 494**	**-61 487**
Profit/loss before tax (EBT)	50 413	-23 508	-11 574	62 424	-61 487
Profit/loss before tax and interests (EBIT)	52 737	-13 592	-828	73 092	-55 652

Table 4.5 Development of profit and loss in 2007 - 2011

4.1.2 Ratio analysis

This subchapter is concerned with ratio analysis of SMART TRADING COMPANY s.r.o. financial statements. Ratios are is divided into 4 key categories – solvency ratios, liquidity ratios, activity ratios and profitability ratios. Each indicator presented in subchapter *2.2.3.2 Ratio analysis* is in this subchapter calculated, annotated and compared to industry benchmark value.

4.1.2.1 Solvency ratios

Equity multiplier (EM)

	2007	2008	2009	2010	2011
Total assets	291 923	327 310	310 785	411 829	337 753
Shareholders' equity	56 850	32 600	21 026	73 520	12 038
EM – STC s.r.o	**5.135**	**10.040**	**14.781**	**5.602**	**28.057**
EM - Industry benchmark	*2.059*	*2.170*	*2.111*	*2.183*	*2.226*

Table 4.6 Equity multiplier

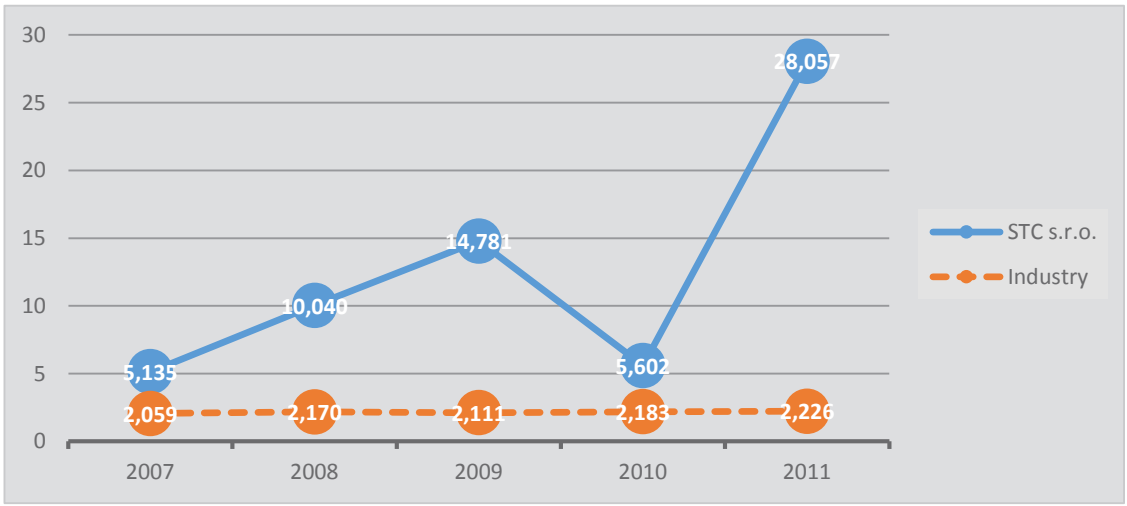

Figure 4.5 Trend analysis of Equity multiplier

Equity multiplier express how many units of total assets were funded by shareholders' equity. Industry results show stable trend of indicator as one unit of industry shareholders' equity was used to fund slightly more than two units of total assets over monitored years. In contrast, as Table 4.10 shows, trend of this indicator for STC s.r.o. is growing as the amount of shareholders' equity was gradually shrinking, having an impact on the value of denominator. With losses in accounting years 2008, 2009 and 2011, amount of total shareholders' equity declined which affected the value of whole indicator. The years with the lowest value of equity multiplier; 2007 and 2010, are also the only years company achieved profit in. In accordance with what was stated in the Literature review, very high value of Equity multiplier indicators signals that company is highly leveraged and thus might have issues with repaying debts in terms of principal and interest. On the other hand, only small amount of shareholders' equity

might, because of the leverage effect, generate high earnings for owners, as will be demonstrated with profitability ratios.

Debt ratio (DR) and Shareholders' equity ratio (SR)

	2007	2008	2009	2010	2011
Other sources	235 073	294 623	289 611	337 648	325 715
Total assets	291 923	327 310	310 785	411 829	337 753
DR - STC s.r.o.	**80.53%**	**90.01%**	**93.19%**	**81.99%**	**96.44%**
DR - Industry benchmark	*51.03%*	*53.17%*	*50.97%*	*51.63%*	*52.18%*

Table 4.7 Debt ratio

	2007	2008	2009	2010	2011
Shareholders' equity	56 850	32 600	21 026	73 520	12 038
Total assets	291 923	327 310	310 785	411 829	337 753
SR - STC s.r.o.	**19.47%**	**9.96%**	**6.77%**	**17.85%**	**3.56%**
SR - Industry benchmark	*48.57%*	*46.08%*	*47.37%*	*45.80%*	*44.92%*

Table 4.8 Shareholders' equity ratio

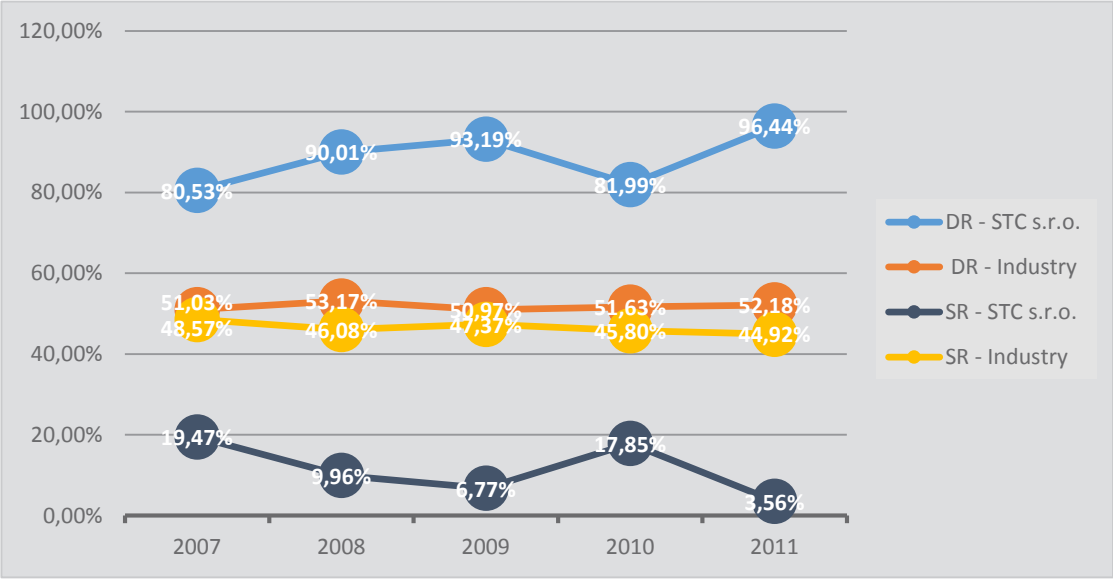

Figure 4.6 Trend analysis of Debt ratio and Shareholders' equity ratio

Debt ratio and Shareholders' ratio could be analyzed together because they both show percentage proportion of other sources (debt)/shareholders' equity on total assets and thus complement each other since their sum is 100%. In the context of selected company, debt ratio

indicates that company's assets was financed almost entirely by a debt money. In turn, shareholders' equity ratio shows declining proportion of shareholders' equity in favor of debt. Two factors contributed to such high proportion of debt on total assets. Firstly, both indicators are affected by shrinking amount of shareholder's equity over time. In relative terms, as the proportion of shareholders' equity declines, the proportion of other sources grows. Secondly, the amount of other sources in terms of total debt was rising, primarily due to increasing amount of bank loans and outstanding payables. Together, both factors contributed to alarming situation in 2011 when 97% of total liabilities of STC s.r.o. consisted of debt. This is much higher proportion than in case of industry, when the proportion of debt to shareholders' equity is approximately 50:50.

Debt to equity ratio (DER)

	2007	**2008**	**2009**	**2010**	**2011**
Other sources	235 073	294 623	289 611	337 648	325 715
Shareholders' equity	56 850	32 600	21 026	73 520	12 038
DER - STC s.r.o.	**413.50%**	**903.75%**	**1377.39%**	**459.26%**	**2705.72%**
DER - Industry benchmark	*105.06%*	*115.39%*	*115.39%*	*107.60%*	*107.60%*

Table 4.9 Debt to equity ratio

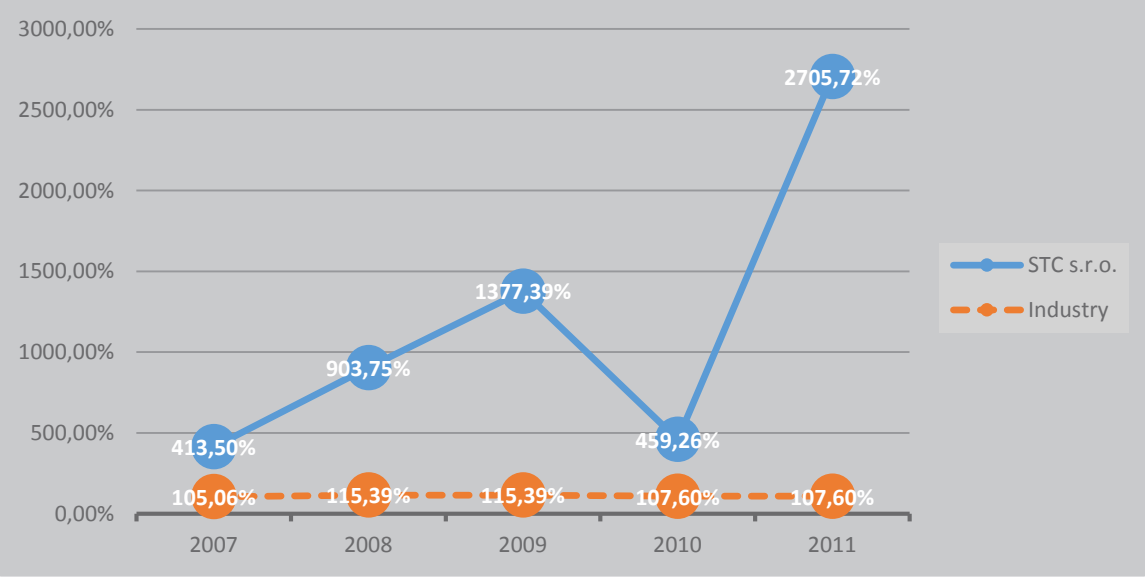

Figure 4.7 Trend analysis of Debt to equity ratio

Pervious indicators showed proportion of other sources and shareholders' equity on total assets. Debt to equity ratios examines the proportion of both balance sheet items to each other. Because of decreasing shareholders' equity and increasing total value of other sources, value of Debt to equity ratio is developing adversely throughout the years. Recommended value of 80 – 120% is far from being respected.

Interest cover ratio (ICR)

	2007	2008	2009	2010	2011
EBIT	52 737	-13 592	-828	73 092	-55 652
Interest expenses	2 324	9 916	10 746	10 668	5 835
ICR - STC s.r.o.	**22.692**	**-1.371**	**-0.077**	**6.852**	**-9.538**
ICR - Industry benchmark	*15.536*	*10.045*	*7.639*	-	-

Table 4.10 Interest cover ratio

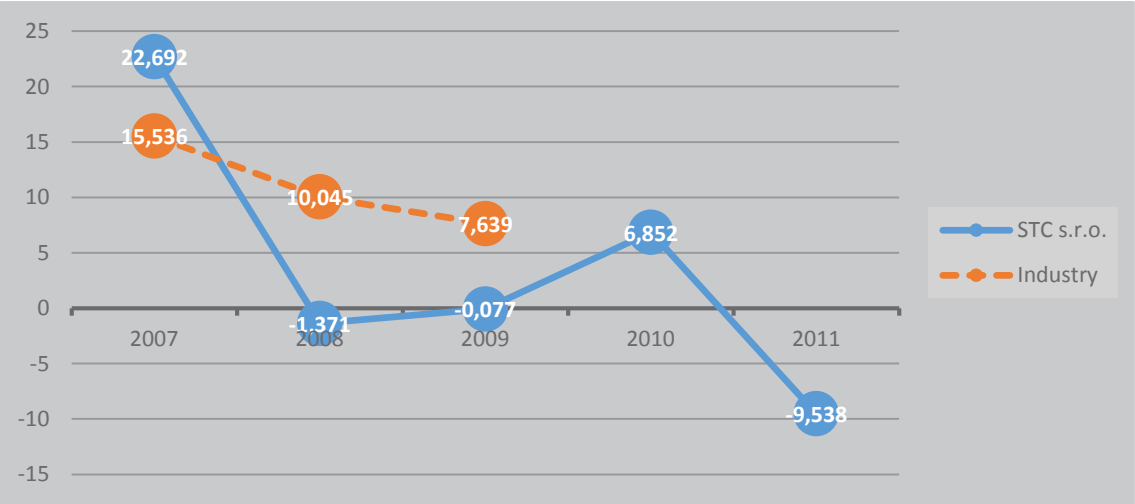

Figure 4.8 Trend analysis of Interest cover ratio

Interest cover ratio express how many times are interest expenses covered by EBIT. Relatively high interest expenses are stemming from company's indebtedness. Favorable result of 2007, when interest expenses were covered by EBIT almost 23 times, turned adversely in years 2008, 2009 and 2011 affected by deep losses and indicates that company was not able to generate enough money to pay for interest charges. Industry data are only available for years 2007 – 2009, because since 2009, interest expanses ceased to be published as a part of official statistics by Ministry of Industry and Trade of the Czech Republic.

4.1.2.2 Liquidity ratios

Current ratio (CR)

	2007	2008	2009	2010	2011
Inventory + S-T receivables + S-T financial assets	94 456	108 504	102 984	198 889	112 902
S-T payables	98 468	140 378	124 189	192 746	197 228
CR - STC s.r.o.	**0.959**	**0.773**	**0.829**	**1.032**	**0.572**
CR - Industry benchmark	*1.481*	*1.404*	*1.754*	*1.710*	*1.642*

Table 4.11 Current ratio

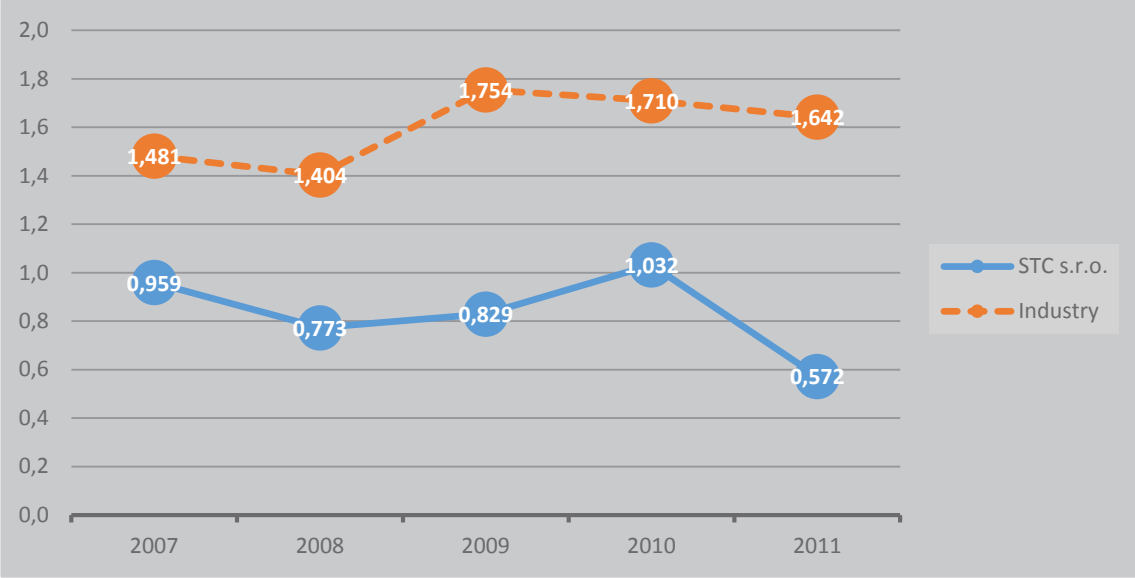

Figure 4.9 Trend analysis of Current ratio

Current ratio indicates how many times the firm would satisfy its creditors in the event when company's debts become due. The recommended ideal value lays in the interval from 1.5 to 2.5. As shown in the Figure 4.9, STC s.r.o. fails to meet this requirement in every monitored year. As explained in the Literature review, ratio lower 1.5 might indicate future insolvency. Only in 2010 the current assets outnumber the short-term payables and thus the company would be able to generate sufficient cash to satisfy creditors.

Quick ratio (QR)

	2007	2008	2009	2010	2011
S-T receivables + S-T financial assets	65 324	77 000	72 446	83 287	54 300
S-T payables	98 468	140 378	124 189	192 746	197 228
QR - STC s.r.o.	**0.663**	**0.549**	**0.583**	**0.432**	**0.275**
QR - Industry benchmark	*0.872*	*0.801*	*1.124*	*1.104*	*1.021*

Table 4.12 Quick ratio

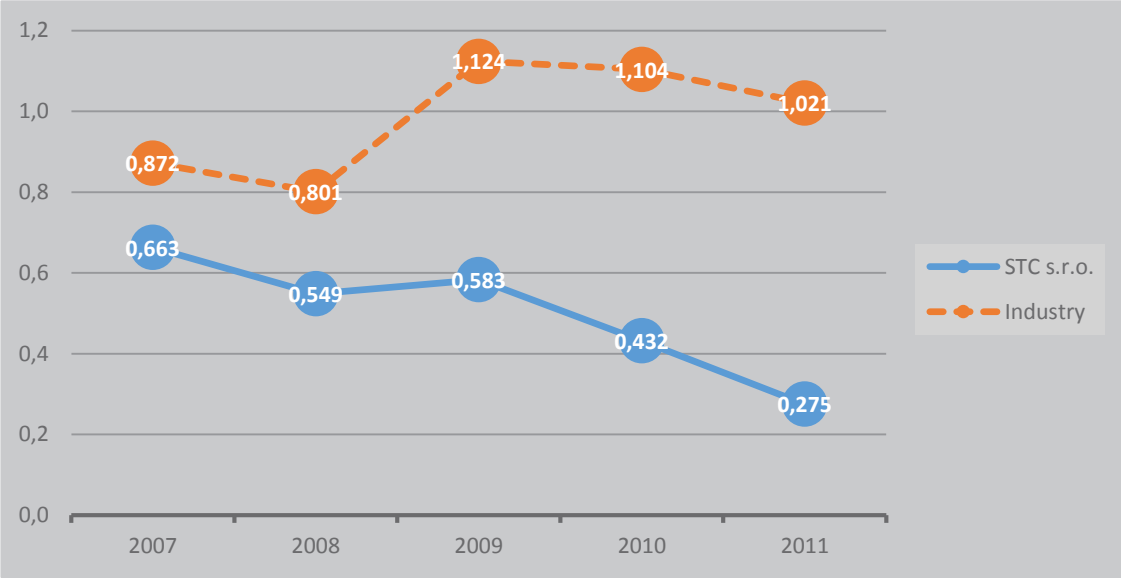

Figure 4.10 Trend analysis of Quick ratio

As regards the Quick liquidity, the inventory items are excluded from current assets and thus this indicator is more accurate in the expression of to what extent is the firm capable to convert its current assets into cash and satisfy its creditors. Downward trend of this indicator signals the ever-worsening financial situation and solvency of STC s.r.o. since the amount of short-term payables is dramatically mounting while the amount of short-term receivables and cash is levelling.

Cash ratio (CaR)

	2007	2008	2009	2010	2011
S-T financial assets	14 878	10 457	-2 617	5 646	2 139
S-T payables	98 468	140 378	124 189	192 746	197 228
CaR - STC s.r.o.	**0.151**	**0.074**	**-0.021**	**0.029**	**0.011**
CaR - Industry benchmark	*0.213*	*0.211*	*0.321*	*0.324*	*0.261*

Table 4.13 Cash ratio

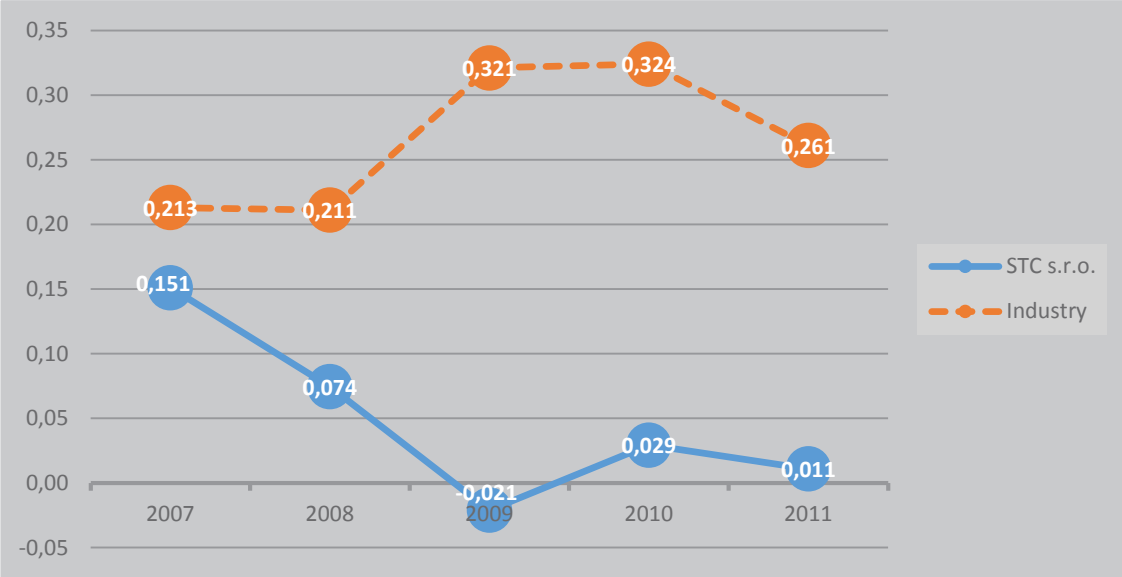

Figure 4.11 Trend analysis of Cash ratio

Recommended value of Cash liquidity is 0.2. While industry achieved the recommended value in every monitored year, STC s.r.o. failed to do so. Only in first monitored year STC approached closer to the ideal value, otherwise it is possible to say that company had insufficient amount of cash in hand and on bank accounts. Moreover, in 2009 indicator turned negative as the amount of money in bank accounts at the end of the accounting year was almost CZK -10 mil. (see balance sheet in Appendix 1).

4.1.2.3 Activity ratios

Total asset turnover (TAT)

	2007	2008	2009	2010	2011
Sales	216 087	204 070	223 958	484 352	351 689
Total assets	291 923	327 310	310 785	411 829	337 753
TAT - STC s.r.o.	**0.740**	**0.623**	**0.721**	**1.176**	**1.041**
TAT - Industry benchmark	*1.278*	*1.252*	*1.010*	*0.937*	*1.026*

Table 4.14 Total asset turnover

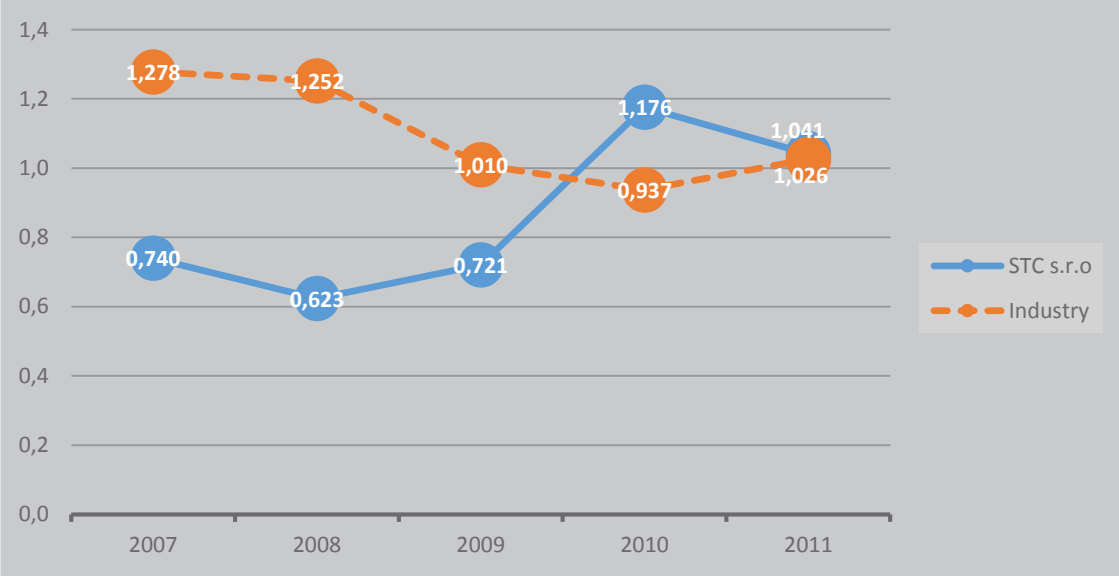

Figure 4.12 Trend analysis of Total asset turnover

Total asset turnover measures the intensity of total assets utilization. First three years' results show that STC s.r.o. asset management was inefficient as 1 unit of asset generated only around 0,6 – 0,7 unit of sales. In 2010 and 2011, however, company's asset management improved significantly, despite the declining industry trend. Favorable results of this indicator was achieved due to increased sales activity in 2010 and 2011, which is reflected in Profit and loss account as increased amount of total sales.

Inventory turnover (IT)

	2007	2008	2009	2010	2011
Sales	216 087	204 070	223 958	484 352	351 689
Inventory	29 132	31 504	30 538	115 602	58 602
IT - STC s.r.o.	**7.418**	**6.478**	**7.334**	**4.190**	**6.001**
IT - Industry benchmark	*5.982*	*5.997*	*5.343*	*4.887*	*4.771*

Table 4.15 Inventory turnover

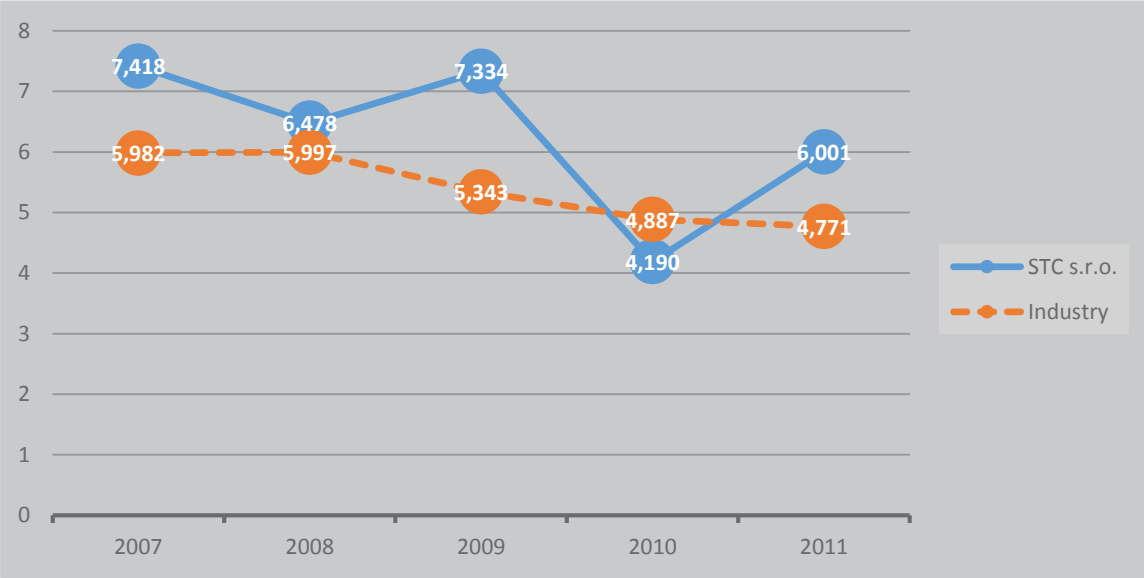

Figure 4.13 Trend analysis of Inventory turnover

Similarly to previous indicator, Inventory turnover measures efficiency of asset management, in this case in terms of how many times company converted inventory items into sales. When compared to industry, one may say that STC s.r.o. asset management is efficient as the result are indeed favorable, only result of 2010 is worse than industry average. Reason behind decline of the indicator in the mentioned year 2010 is following; even though company more than doubled its production in mentioned year, the amount of inventory was four times higher than in previous years driving the total value of Inventory turnover down. In 2011, total sales declined, so did the inventory level. Reason of such surge in total sales and amount of inventory in 2010 and following fall in 2011 are explained in chapter Discussion.

Average collection period (ACP) and Creditors payment period (CPP)

	2007	2008	2009	2010	2011
Trade receivables	33 796	62 286	62 423	46 626	41 215
Sales	216 087	204 070	223 958	484 352	351 689
Average collection period	**58**	**112**	**102**	**36**	**43**
Trade payables	83 948	104 402	102 729	164 166	164 132
Sales	216 087	204 070	223 958	484 352	351 689
Creditors payment period	**142**	**187**	**168**	**124**	**171**

Table 4.16 Average collection period and Creditors payment period

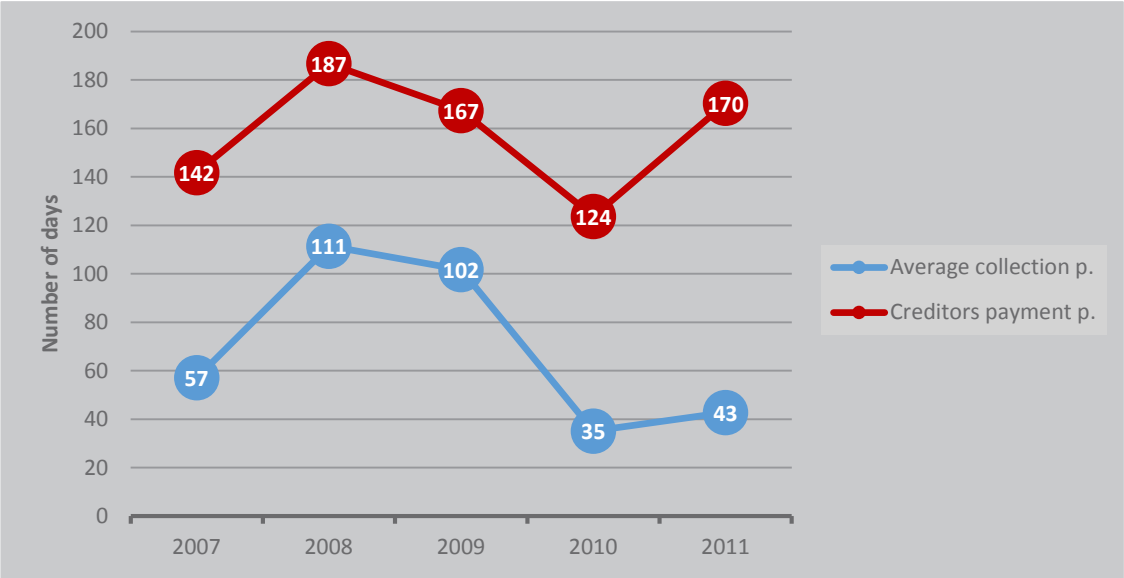

Figure 4.14 Trend analysis of Average collection period and Creditors payment period

Average collection period, as mentioned in Literature review, should be kept as short as possible, since it shows how many days it takes customers to pay for the goods invoiced by STC s.r.o. This assumption is complied, especially in the last two years. Conversely, Creditors payment period indicates how many days it takes STC s.r.o. to pay its suppliers and other creditors. Since it is desirable to keep Creditors payment period longer than Average collection period, it appears that company is financially stable as the receivables are collected faster than company pays its payables in every monitored year. Although in this perspective the results seem to be favorable, the high Creditors payment period indicates serious solvency problems as it takes from four (in 2010) to more than six months (in 2008) to pay for company's trade debts.

4.1.2.4 Profitability ratios

Return on equity (ROE)

	2007	2008	2009	2010	2011
EAT	39 341	-24 250	-11 574	52 494	-61 487
Shareholders' equity	56 850	32 600	21 026	73 520	12 038
ROE - STC s.r.o.	**69.20%**	**-74.39%**	**-55.05%**	**71.40%**	**-510.77%**
ROE - Industry benchmark	*18.65%*	*14.91%*	*8.85%*	*8.19%*	*8.32%*

Table 4.17 Return on equity

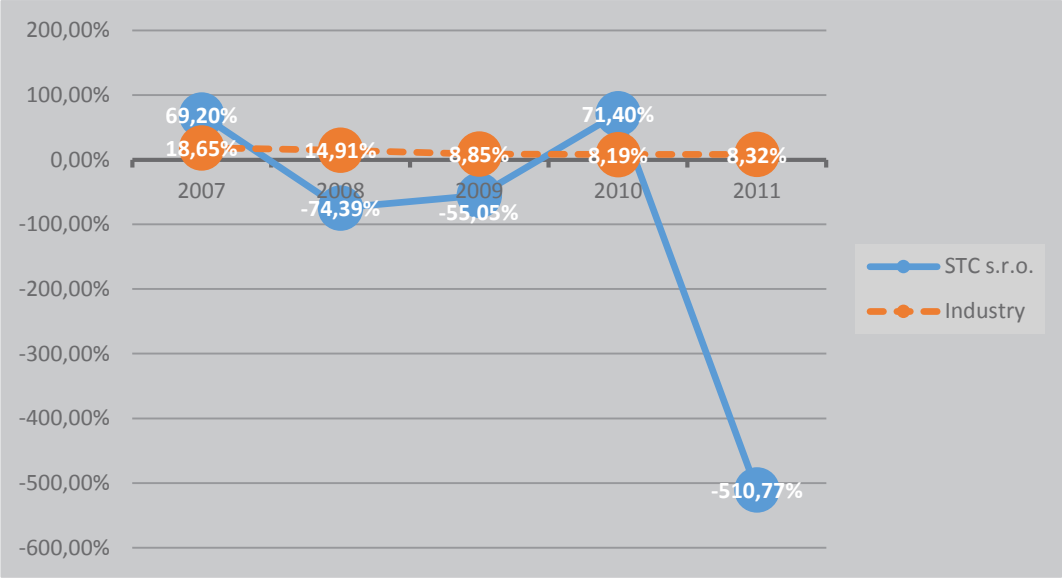

Figure 4.15 Trend analysis of Return on equity

As already showed in Table 4.5 *Development of profit/loss – STC s.r.o.,* company achieved profit only in two years; 2007 and 2010. Since the profit/loss in form of EBIT or EAT is used to calculate all profitability ratios, each indicator is influenced by previously outlined development of profit/loss. Nevertheless, both years of profit show considerably high rates of Return on equity, significantly higher than results of industry. Shareholders' equity was highly leveraged and thus such high rates of return on equity are a result of financial structure of company, mainly its high proportion of other sources in terms of bank loans and trade payables. As it is observable in last year's result, financial leverage might have adverse consequences in case of loss. Due to the leverage effect and generally very low proportion of shareholders'

equity, loss of accounting year 2011 was magnified and Return on equity in this year is way below industry average and previous years' results.

Return on capital employed (ROCE)

	2007	2008	2009	2010	2011
EBIT	52 737	-13 592	-828	73 092	-55 652
Shareholders' equity + L-T payables + L-T bank loans	169 555	151 438	166 448	198 422	97 853
ROCE - STC s.r.o.	**31.10%**	**-8.98%**	**-0.50%**	**36.84%**	**-56.87%**
ROCE - Industry benchmark	*21.03%*	*16.25%*	*9.68%*	*9.17%*	*9.70%*

Table 4.18 Return on capital employed

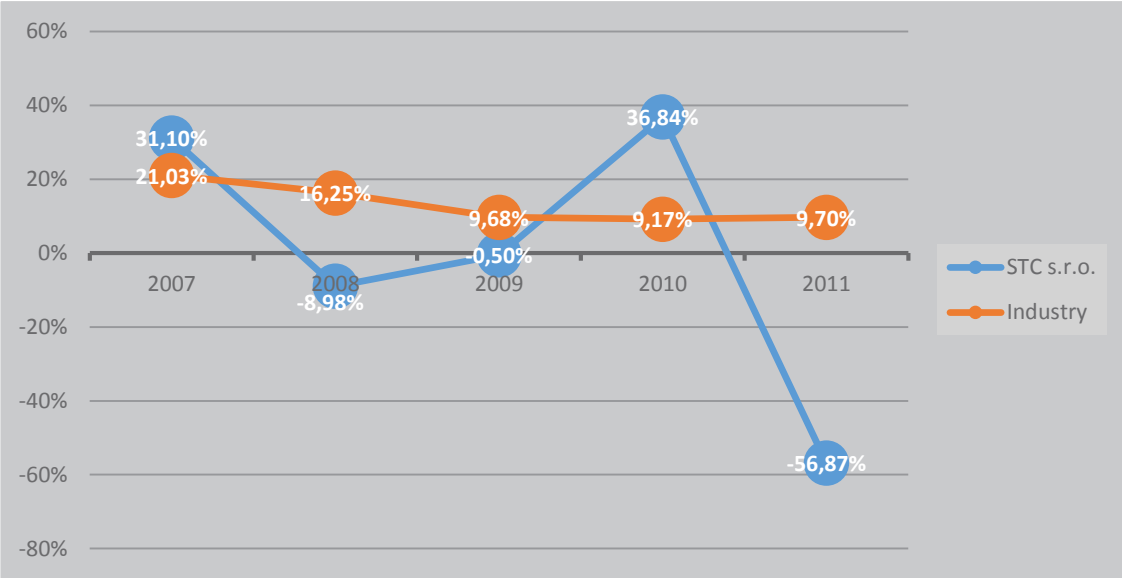

Figure 4.16 Trend analysis of Return on capital employed

Indicator ROCE, unlike ROE, measures return on all long-term sources of funding, not just on equity. As can be seen from Figure 4.16, long-term capital in terms of shareholders' equity, bank loans and long-term payables recorded 31% return in 2007. Indicator ROCE of company STC s.r.o. in 2007 even exceeds the industry average return. However, because of losses in next two years, indicator ROCE drops under industry average and displays negative values. Successful year of 2010, in turn, showed the best result in monitored period with almost 37% rate of return on invested capital. Nevertheless, similarly to last year's result of ROE, indicator in 2011 dropped notably.

Return on assets (ROA)

	2007	2008	2009	2010	2011
EBIT	52 737	-13 592	-828	73 092	-55 652
Total assets	291 923	327 310	310 785	411 829	337 753
ROA - STC s.r.o.	**18.07%**	**-4.15%**	**-0.27%**	**17.75%**	**-16.48%**
ROA - Industry benchmark	*12.80%*	*9.86%*	*6.39%*	*5.82%*	*5.95%*

Table 4.19 Return on assets

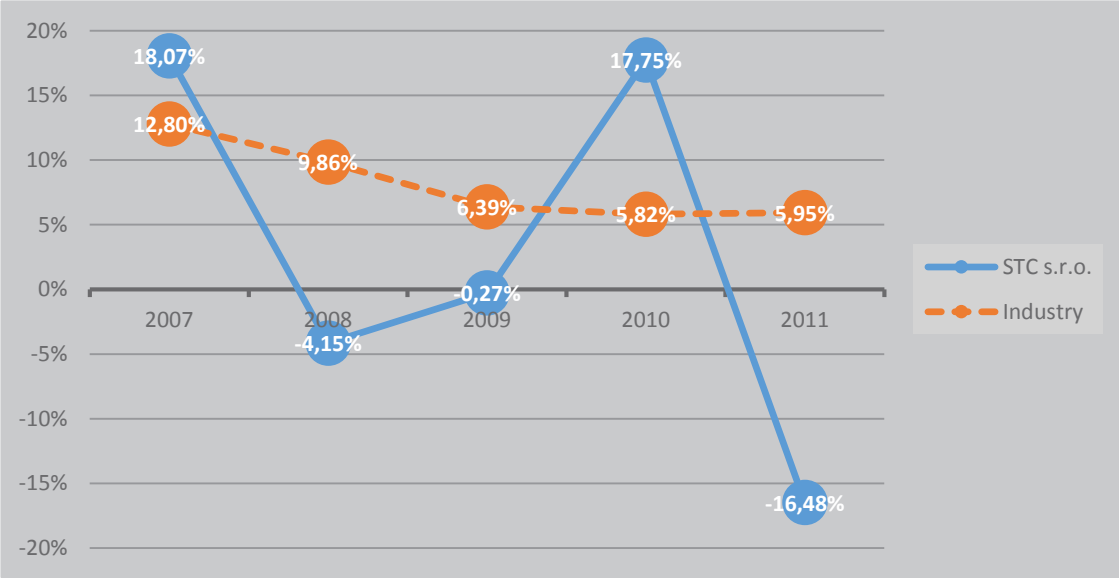

Figure 4.17 Trend analysis of Return on assets

Development of indicator ROA is similar to previously outlined ratios, although the spread between the highest and lowest achieved value is not that significant. This is because ROA compares earnings to total assets and thus the value of denominator is substantially higher. On the other hand, overall ROA of industry shows downward trend, with ROA in 2009 twice as smaller as the ROA of 2007 as a first monitored year. Evidently, this is the consequence of recession after Global Financial crisis and overall decline in economic activity which brought fewer opportunities to trade for companies. Industry ROA continues to fall in 2010 and levels out on similar value in 2011.

Net profit margin (NPM)

	2007	2008	2009	2010	2011
EAT	39 341	-24 250	-11 574	52 494	-61 487
Sales	216 087	204 070	223 958	484 352	351 689
NPM - STC s.r.o.	**18.21%**	**-11.88%**	**-5.17%**	**10.84%**	**-17.48%**
NPM - Industry benchmark	*7.09%*	*5.49%*	*4.15%*	*4.00%*	*3.64%*

Table 4.20 Net profit margin

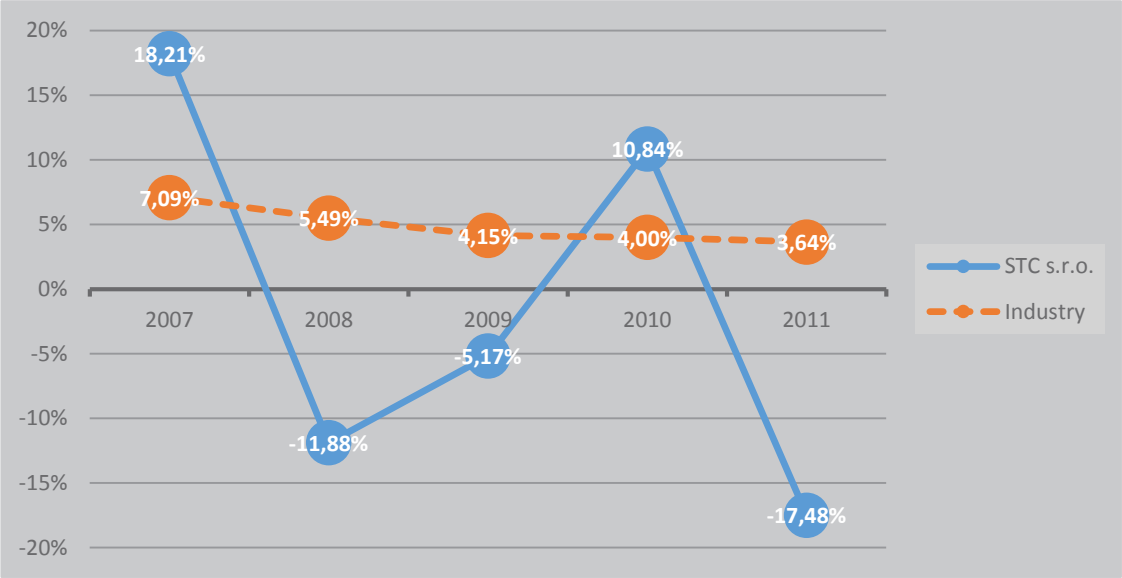

Figure 4.18 Trend analysis of Net profit margin

As the results in Table 4.20 indicate, 18% of total sales company kept as earnings in 2007, followed by a slump to negative values in 2008 and 2009. In 2010, company generated the highest sales in monitored period and was able to kept almost 11% of them as earnings. Similarly to industry average, 2011 was a year of the lowest profit margin.

4.1.3 Du Pont analysis

Du Pont analysis represents the decomposition of Return on equity and determines to what extent is the indicator ROE influenced by individual items that are entering into this indicator.

Complete scheme of ROE decomposition with calculations of each year is to be found in Appendix 3. From the scheme it is clear that indicator ROE is influenced by Net profit margin, Asset turnover and Equity multiplier. Net profit margin is further broken down into three factors; Operating profit margin, Interest burden and Tax burden. As evident from the diagram

in Appendix 3, any change of certain item in the result changes the value of the ROE as the top indicator.

Now let's look at the Table 4.21. Evidently, Equity multiplier have the strongest influence on total value of ROE in each monitored year. In 2010, for instance, STC s.r.o. earned from every unit of sales 0,108 units of earnings, while the total assets in the same year "turned over" 1.176 times in sales. This company ability to generate margin on sales and utilize its assets in favor of sales is then multiplied by the Equity multiplier, which express to what extent is the shareholders' equity leveraged by other sources of funding, in case of 2010, the factor is 5.602.

	ROE (EAT/equity)	=	Net profit margin (EAT/sales)	x	Asset turnover (Sales/assets)	x	Equity multiplier (Assets/equity)
2007	0.692		0.182		0.740		5.135
2008	-0.744		-0.119		0.623		10.040
2009	-0.551		-0.052		0.721		14.781
2010	0.714		0.108		1.176		5.602
2011	-5.108		-0.175		1.041		28.057

Table 4.21 Decomposition of ROE

For better understanding, of total amount of sources of funding (CZK 411 829 thousands in 2010), only CZK 73 520 thousand were provided by owners (in form of Shareholders' equity). Despite the low proportion of Shareholders' equity on total sources of funding, shareholders receive all earnings, even though they provided only 17,85% of total funds. Favorable effect of financial leverage thus could be demonstrated in such a case. On the other hand, as for instance the year 2011, shows, financial leverage could also magnify the adverse results. Because of achieved loss in 2011, net profit margin is negative. Such result is then multiplied by very high value of Equity multiplier resulting in Return on equity of 510.8%.

5 DISCUSSION

This study already analyzed the financial performance with the use of the methods of financial statement analysis and in this section study will discuss achieved results and assess the impact of the Global Financial crisis on the basis of interview with Financial manager of SMART TRADING COMPANY s.r.o. Complete interview is to be found in Appendix 4.

5.1 Evaluation of financial performance

As the results of Equity multiplier suggest, STC s.r.o. employed a high degree of financial leverage, in terms of the high proportion of debts on total funding, already in pre-crisis period as the Equity multiplier in 2007 was two times higher than industry average. Moreover, results of Debt ratio indicated that the proportion of debt on total funding was constantly increasing at the expense of shareholders' equity, resulting in nearly 97% share of debts in 2011 as in last monitored year. To compare, industry average in 2011 was 44% lower. Such high proportion of debt financing implies high interest expenses to be paid. As regards to the structure of debts, vertical analysis showed that in the first three monitored years, company heavily relied on bank loans, however, the proportion of outstanding payables more than doubled from 2007 to 2011 and dominated especially in 2010 and 2011. What is more, the share of outstanding payables on total liabilities in 2011 accounted for almost 60%, signalizing serious problems with solvency. As the interview with Financial manager clarified, bank loans were chosen as a source of capital to finance company's investments, in particular the construction of new manufacturing facilities, which were finished in 2008.

Regarding the growing number of outstanding payables, liquidity ratios revealed that an increasing share of outstanding payables adversely affected the liquidity position of the company. Although the results of Current ratio suggest that trend of company's liquidity was rather stable - since these results levelled on more or less the same level (besides 2011 result), the value of this indicator is alarming. From all monitored years, the company would have been able to turn its current assets into sufficient amount of cash to cover the debts only in 2010. In addition to that, according to Financial manager, company had to react to its worsening liquidity by transition to invoice factoring. This step includes selling STC s.r.o.'s payables to factoring

institution with a purpose of acceleration of cash collection. As results of Average collection period suggest, company by carrying out this transition managed to speed up average collection period from 102 days in 2009 to 35 days in 2010 and 42 days in 2011. Despite the transition to invoice factoring, results of Quick ratio, after excluding inventory as the least liquid parts of current assets, showed that the liquidity of company more and more declined over the years. Evidently, the cause of deteriorating liquidity position is the growing share of debts, in particular share of outstanding payables, which led to solvency issues. Financial manager explained that the solvency issues led to the situation when some of the company's creditors filed for insolvency proceedings, which began in 2011.

On the bright side, results of Total asset turnover and Inventory turnover proved that the efficiency of firm's asset management has improved over the years. Main reason behind the improvement was a major rise in sales activity. To be more precise, horizontal analysis of Profit and loss account revealed 150% annual increase in total sales in 2010. Financial manager of STC s.r.o. explained this surge in annual change of sales in terms of more than twofold increase in production volume related to new manufacturing facilities and contract with new Italian customer.

Since the results of Profitability ratios depend upon profit or loss of a given year, all profitability ratios showed similar trend in development. This trend could be characterized as favourably high result in 2007 followed by fall into negative figures in 2008 and 2009, sharp rise in profitability recorded in 2010 and return into negative values in last monitored year of 2011. One of the interview question aimed to explain factors behind unprofitable years of 2008, 2009 and 2011. As Financial manager clarified, losses of 2008 and 2009 was a consequence of reduction in the volume of deliveries, steep increase in input material prices in 2008, and strongly appreciating exchange rate of CZK/EUR in 2008 resulting in lower export revenues. Generally, those consequences could be attributed to the onset of the economic recession after the Global financial crisis, affecting the real economy. However, the losses in 2011 are attributed, as interview answer suggest, to significant drop in total amount of orders by Italian customer, not to the economic recession. This signalizing naive management decision-making since the company relied too much on one trading partner and did not take into account potential risk of drop in the volume of orders. As a quick look at the result of horizontal analysis of Profit and loss account may suggest, personal expenses had increased in 2011 by nearly 7%, despite the 45% decline in sales, indicating that company employed more staff than in previous years, thus the company clearly did not expect such decline in production volume.

5.2 Factors influencing the financial performance

The indicator ROE was chosen to be the yardstick of financial performance since this indicator brings together all areas of financial analysis. By carrying out the Du Pont analysis of ROE, the above-average results of indicator in 2007 and 2010 clearly showed that the ability of STC s.r.o. to generate profit was due to the leverage effect magnified into higher return on shareholders' equity. On the contrary, also losses were magnified by such excessive portion of debts. Du Pont analysis showed that financial performance of STC s.r.o. was mainly influenced by solvency position of company in terms of its excessive amount of bank loans and accumulating volume of outstanding payables, also affecting the company's liquidity.

5.3 Impact of the Global Financial crisis on financial performance

On the basis of previous results and discussion, it is possible to state that the crisis had most significant impact on company's solvency and liquidity. Interview with Financial manager confirmed, that the crisis has affected the solvency position indirectly through unfavorable customer payment behavior, since delayed payments by customers adversely affected the company's ability to pay back its debts.

Also, the crisis, according to the interview answers, contributed to a decline in the volume of orders of European customers, affecting the firm's profitability through the lower sales activity. However, as already mentioned above, losses in 2011 are not, with respect to the opinion of Financial Manager, attributed to the Global Financial crisis, but to drop in orders by key Italian customer.

Although the STC s.r.o. management expected the crisis will come, none preventive measures have not been implemented. Management simply have been waiting what will crisis bring. As Financial manager said, specific steps have been undertaken lately during the crisis in order to respond to the company's adverse economic results in 2008. To be more specific, STC s.r.o. implemented plan of measures in the area of cost saving, consisting of steps such as suspended recruitment, abolition of employees' benefits, increased activity in in debt collection followed by transition to invoice factoring. Also, to prevent any unexpected changes in raw material prices, company ceased to set prices for a whole year and instead of it, started to set prices for

each specific contract in order sales prices to reflect the actual price of raw material. As the development of profit suggest (Table 4.5), company by implementing those measures managed to mitigate the loss in 2009 and achieved favourable level of profit in 2010.

However, significant drop in revenues in 2011 because of previously outlined reasons and ever-worsening solvency position eventually led to insolvency proceedings in 2011. Insolvency proceedings in 2011 – 2013 is also by Financial manager considered as the most serious problem crisis has brought. Further, the insolvency proceedings resulted in the sale of the company to a new owner who became majority creditor.

6 CONCLUSION

The aim of this research was to answer the question whether and to what extent have the Global Financial crisis had impact on case company SMART TRADING COMPANY s.r.o during the years 2007 – 2011. Objectives of this research were firstly, to evaluate financial performance of the case company during the monitored years. Secondly, to identify main factors influencing the financial performance of a case company. Thirdly, to assess the impact of Global Financial crisis on a case company and its financial performance.

Literature review researched that the four areas by which the financial performance is determined and which influence the financial performance of the organization the most are the solvency, liquidity, activity and profitability position. Literature review also presented the tool used to the evaluation of financial performance – financial statement analysis and defined methods used while carrying out the evaluation. Also, the 2007 – 2009 Global Financial crisis was introduced and described. Moreover, the impacts of the Global financial crisis on the enterprises and their financial performance was discussed and revealed that the crisis have caused worsening of liquidity of organizations, fall in their profitability and accruing losses leading to solvency issues.

Research continued with the Results chapter in which the financial performance of case company was analyzed with a focus on four areas determining the overall financial performance; company's solvency and liquidity position, activity and ability to generate profit. On the basis of those results, structured interview with Financial manager of SMART TRADING COMPANY s.r.o. was conducted.

Results revealed that the Global financial crisis affected the financial performance mainly through its impact on solvency position. Accruing debts further impacted company's liquidity.

Solvency ratios showed that the company was burdened by high proportion of debts already in pre-crisis period as a consequence of investment activity with a purpose of expansion of case company. This proportion due to growing number of outstanding payables further grew leading to alarming share of 97% debts on total funding. It was identified that the main cause of further growth of indebtedness was the economic recession which followed after the outbreak of the Global Financial crisis, in particular the lower demand in terms of customers' orders. Strong exchange rate of Czech Koruna contributed to decline in export since the product became relatively more expansive than before.

Worsening customer behavior led to adverse liquidity position, far worse than was the Industry average in that period, which caused that STC s.r.o. was unable to repay its obligations and further accrued its payables and thus the proportion of debts on total funding. Activity ratios were to large extent influenced by the volume of orders by key customer from Italy.

Results revealed significant impact of the Global Financial crisis on profitability mainly in the first two crisis years 2008 and 2009. Profitability in the following year was favorable thanks to the high volume of sales activity. Nevertheless, economic results of 2011 ended in deep loss again. However, those losses are not attributed to the impact of Global financial crisis, but naive management decisions and relying too much on one trading partner.

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LIST OF ABBREVIATIONS

CDO – Collateralized debt obligations

CZK – Czech Koruna

EAT – Earnings after taxation

EBIT – Earnings before interest and taxation

EU – European Union

FED – The Federal Reserve System

GDP – Gross domestic product

GSE – Government-sponsored enterprises

IMF – International Monetary Fund

OECD - Organisation for Economic Co-operation and Development

ROA – Return on assets

ROE – Return on equity

STC s.r.o. – SMART TRADING COMPANY s.r.o.

WTO – World Trade Organisation

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- I agree that the diploma (bachelor) thesis shall be archived in the electronic form in VSB-TUO's Central Library and one copy shall be kept by the supervisor of the diploma (bachelor) thesis. I agree that the bibliographic information about the diploma (bachelor) thesis shall be published in VSB-TUO's information system;

- It was agreed that, in case of VSB-TUO's interest, I shall enter into a license agreement with VSB-TUO, granting the authorization to utilize the work in the scope of Section 12(4) of the Copyright Act;

- It was agreed that I may utilize my work, the diploma (bachelor) thesis, or provide a license to utilize it only with the consent of VSB-TUO, which is entitled, in such a case, to claim an adequate contribution from me to cover the cost expended by VSB-TUO for producing the work (up to its real amount).

Ostrava dated 12. 6. 2016

David Skarka
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Student´s name and surname

LIST OF ANNEXES

ANNEXES